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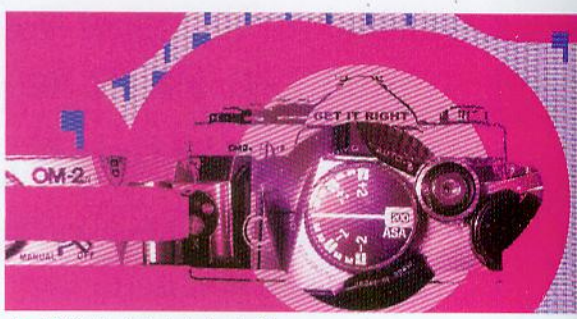

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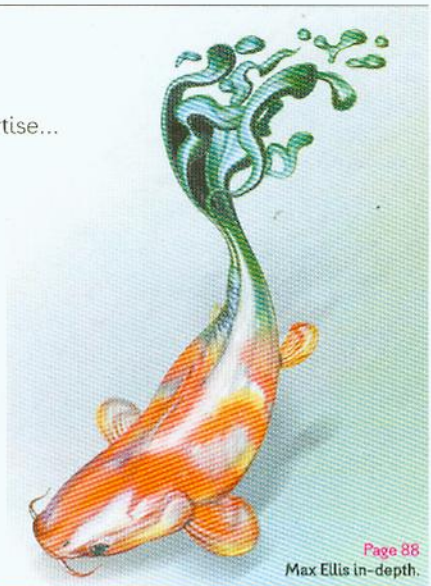

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Max Ellis in-depth.

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Work along with our tutorials using the files on our cover disc.

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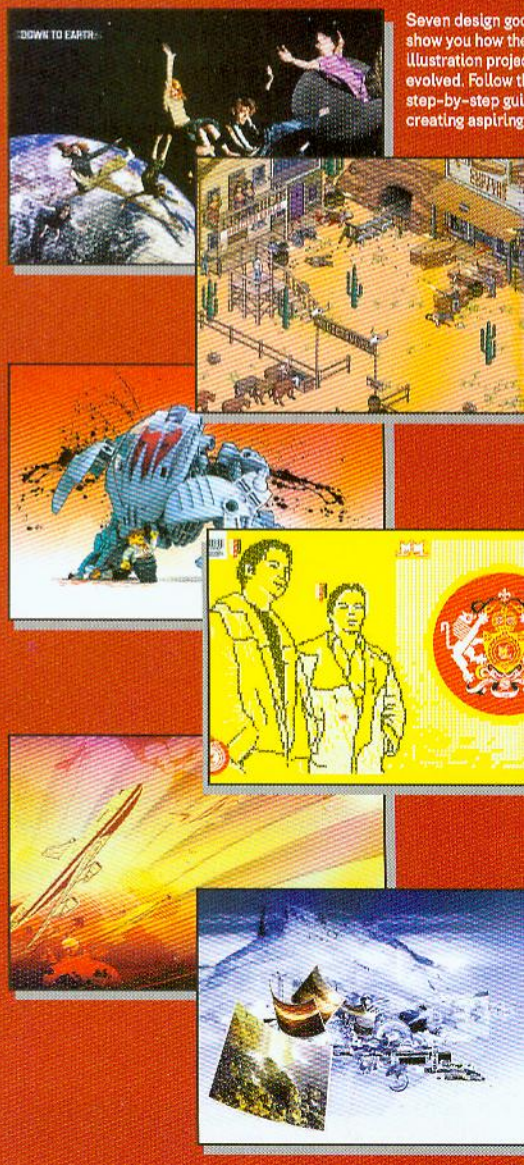

Seven design gu show you how th illustration proje evolved. Follow t step-by-step gui creating aspiring

COMPUTER arts projects INTERACTIVE

On the CD

Your guide to the free extras given away on this issue's cover disc...

Video Tutorials

EXCLUSIVE!
ILLUSTRATOR CS VIDEO TUTORIAL FROM YANN CALOGHIRIS
(AVI format, requires WMP 7 – watch for a QuickTime version next issue)
Plus two more basic video tutorials from PsXtras in WMV format: 'Funky Sphere' and 'Layer Scaling'

Software

MDM STUDIO
COMPLETE rich application development suite from MDM (Windows only)
Create screensavers, applications, presentations and more!

ILLUSTRATOR 10 DEMO
A fully-functional, 30-day trial version of Adobe's renowned vector package (demo for Mac OS X/Windows)

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3D TIGER by Elysium (demo, Mac Classic/OS X/Windows)
CADGATE by Applicraft (demo, Mac Classic/OS X/Windows)
EPS EXTRACTOR by Graffix (freeware, Windows)
FOLDUP by Comnet (demo, Mac Classic/OS X/Windows)
NUDGE PALETTE by Graffix, CS compatible (demo, Mac OS X/Windows)
VECTOR STUDIO 2 by Virtual Mirror (demo, Mac Classic/OS X/Windows)

Photoshop Plug-ins

CYBIA Eight plug-ins from Cybia (freeware, Mac Classic/OS X/Windows)
ETCHTONE by Andromeda (demo, Mac Classic/Windows)
HOT TEXT by Vertigo 3D (demo, Mac Classic/OS X/Windows)
PHOTOGIF by BoxTop Software (freeware, Mac Classic/OS X/Windows)
PROJPEG by BoxTop Software (freeware, Mac Classic/OS X/Windows)
REDEYE PRO by Andromeda (demo, Mac Classic/OS X/Windows)

Showreels

Showreels from The Ronin (Rob Chiu) and Yann Caloghiris

Tutorials

Source images supplied by MAGICTORCH for Section 6, Structure & Composition.
These are supplied so you can try out our tutorial for yourself, and not for any other use.
They are copyright and not for redistribution in any form. Source images are not included for other tutorials because they involve commercial work subject to clients' copyrights.

JTools Flash tools

Eight FULL Flash tools from FlashJester ([w] www.flashjester.com) for use with Flash 5. (They might work with Flash MX too , but this is not officially supported.) They require: Windows 95/98/ME/NT/2000/XP.

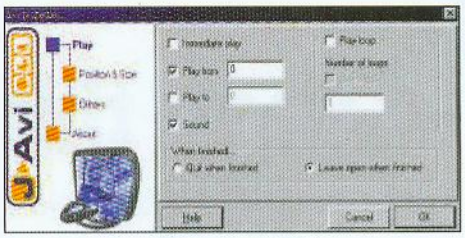
JTools

JTools is a whole suite of user-desired add-ons for Macromedia Flash Projectors. They give you an extra set of options and capabilities not natively found in the Flash-authoring environment. We have seven on the CD, plus Jugglor (below)!

jugglor

For use with Flash 5

Jugglor is a tool for enhancing your Flash Projectors. It is the only tool that uses the projector file as the Flash player, which allows greater speed on projector playback. It gives you an array of options to customise your projectors and is self-contained (that is, the Flash player is built in), which means you don't have to distribute anything else with your application.



Take control of your AVI video files with JAvi.

J AVI

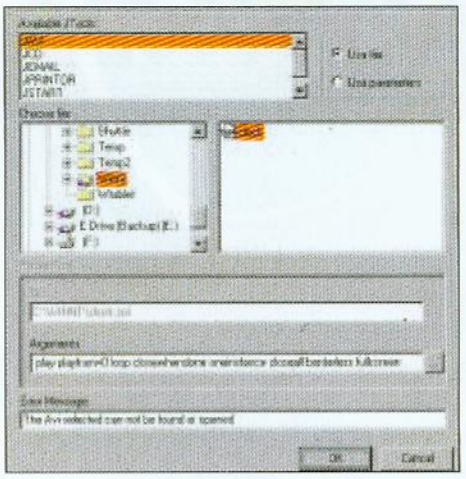
JAvi enables you to launch and play AVI video files in the JAvi custom player. The add-on gives you massive control over the way you utilise your AVI files and is accessible by using the FSCommand Exec and JAvi itself. The features include looping, close when finished, size of AVI, position on screen, one instance, close all JAvis playing, sound on/off, dragging on/off, toolbar and control bar disabling/enabling, and border size.

J EMAIL

This is an extremely easy way to ensure that your projectors include an email address. JEMail is so versatile that it works across all Windows platforms and all Flash files, unlike Flash's native 'GetUrl' command.

J HELPOR

JHelpor eradicates the need to use text files to create your external data for use in the JTools series. The easy-to-use graphical user interface provides a quick and simple bridge between user and a functioning piece of software.



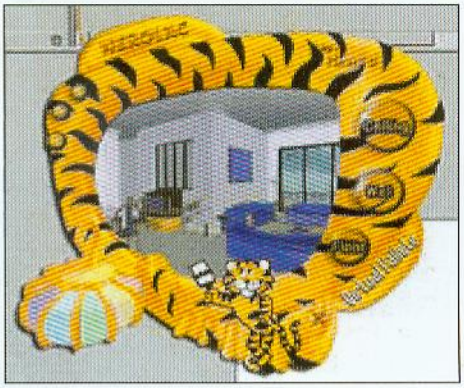
JHelpor bridges the gap between the JTools user and the software.

J NETCHECK

With this JTool, you can check to see if the user is online or not by using one simple command. This is extremely useful, because you can then choose not to run a certain command if the user isn't online, and you can message them to connect to the Internet. Once run, JNetCheck displays the connection status (True or False) in a text file which you can load into Flash as variables.

J PRINTOR

This JTool enables you to create Flash screen dumps. The area you wish to print can be customised, allowing you the option of printing the entire screen, just a part of it or individual images from it. This selection is done using JSelector, a tool included with JPrintor.



Customise your projector to reflect your love of wild animals!

J SAVE

One of the new features in Flash was that it allowed you to load variables from outside files. It did not take long until text files were being used to quickly update Flash files. Using ASP, Flash designers have created guest books, Flash databases and much more. This involved the information being read from the ASP files and then written back to them. However, this could only be accomplished online. JSave allows you to save text entered into Flash to a text file on the hard drive. It saves user options, allows you to enter details in Flash offline and enables you to insert your name. It will remember such data for future launches of the Flash file.

J SHAPOR

JShapor allows you to create a custom-sized and custom-shaped projector file. The only thing you're limited by is your imagination and creativity.

Upgrade and save 15 per cent!

Take advantage of this special upgrade offer from FlashJester and take a 15 per cent discount off the normal price of the complete Bundle1, which gives you even more tools to extend the capabilities of Flash. These are the other fantastic JTools you'll get in Bundle1:

- JStart. With JStart, you can launch any file – AVI, PDF, doc, MP3, TIFF and many more – and it will open in the program that's been specified for that file.
- JWeb. This JTool is designed to open Web links from your Flash file, with the browser window always appearing on top of the projector file and not behind it.
- JMAPI. Create mail-enabled applications and display them within the end user's email client in the projector file. JMAPI is compatible with all major email clients – *Outlook, Outlook Express, Lotus Notes, Eudora* and *Netscape Mail.*
- JMovie. Enables you to play AVIs as well as MPEG files, some QuickTime movies and many others directly from your projector files. This clever cinematic feature is made possible by Windows Media Player ActiveX controls.

To find further details and to order, visit: [w] http://flashjester.com/index.html?section=ordering_bundles_bundle1.
To claim your discount, enter the following coupon number when prompted: 28287222.

SECTION **ONE**

Manipulating photos for print

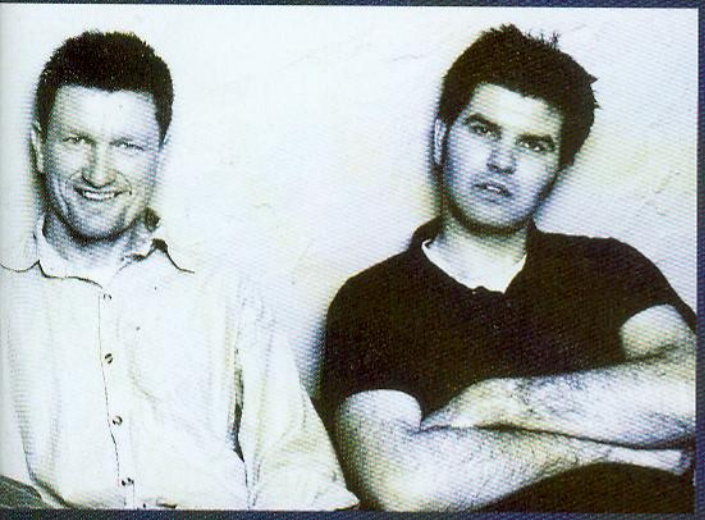
The Walcot Studio show us how these shots were taken and then manipulated in *Photoshop* for a recent Ted Baker ad campaign…

The Walcot Studio kicks off our expert techniques issue with six pages of insider information on photography techniques and photo manipulation. A photoshoot often precedes a design job, particular when working on an advertising campaign, so it's essential to know what you're doing. Of course, not everything hinges on the shoot, because, as you'll see over the following pages, many adjustments and repairs can be made in *Photoshop*.

Turn the page for a profile of The Walcot Studio team, their discussion of the image pictured here, and a detailed guide to all the manipulation work needed to produce this image for Ted Baker's recent ad campaign. ›

Expertise provided by Paul O'Connor and Paul Hames of The Walcot Studio **[w]** www.thewalcotstudio.co.uk, **[e]** info@paulandpaul.co.uk. The Walcot Studio would like to thank Ted Baker, NASA, Kitrocket, Pluto Models (Mike, Cari, Izzi, Peter, Naomi, Monique and Jess) and Jess Clements (World Champion, Trampoline). Make-up by Camilla Kirk-Reynolds using MAC. Styling by Steve Evans. Photographer's assistant: Alexa Ensom.

The Walcot Studio, a.k.a. Paul and Paul



Paul and Paul have been working together at The Walcot Studio for the past four years. Paul O'Connor has been a freelance photographer since 1988 and Paul Hames has a background in design and art direction. Together, this dynamic duo is stamping its mark on the world of fashion and advertising.

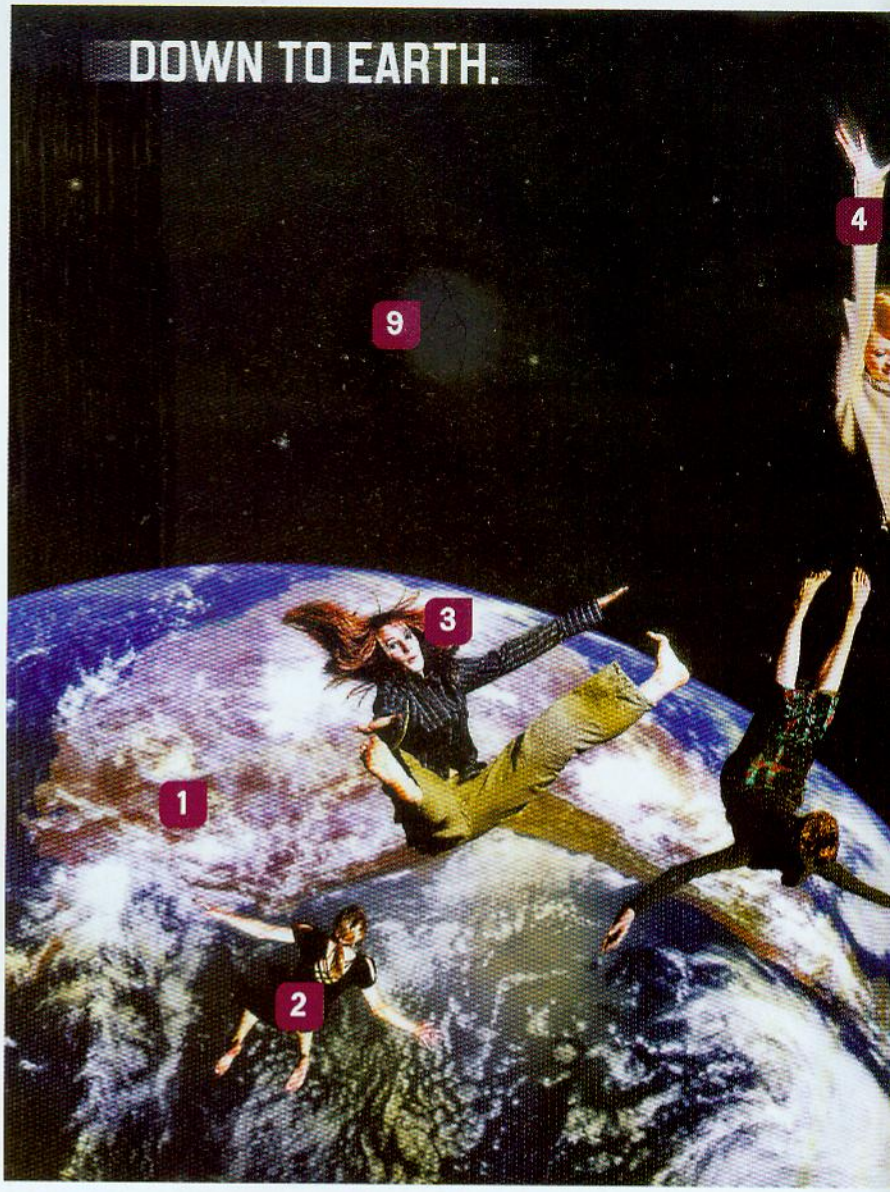
Shooting mainly on digital and working closely with an array of illustrators and photo manipulators, like Joe Short of Kitrocket, who did the *Photoshop* work on this campaign, they combine to create exciting and well-executed imagery.

Paul O'Connor comes from the school of Ansel Adams and spent the first half of his career buried in a darkroom, not seeing the light of day for weeks on end. Things are different nowadays since the advent of digital, and O'Connor spends the majority of his time behind the lens of his Canon 1DS, rarely sensing the pungent aromas of developer, stop bath and fixer.

Paul Hames is a competent photographer in his own right, and has an eye for seeing an image before it's been created. He plays a very important role in the team, taking a back seat from the camera, working mainly with the client to conceptualise and create campaigns.

Paul and Paul see themselves as being a think-tank for ideas-based photography, and their combined skills have not gone unnoticed in the fashion industry. Successful ad campaigns for Paul Smith, Diesel and their most recent project with Ted Baker are testimony to their increasing popularity with ad agencies and design consultants.

If you'd like to contact Paul and Paul or Joe Short at The Walcot Studio, [e] info@paulandpaul.co.uk or [e] info@kitrocket.com



Walcot Studio in focus...

1 Earth

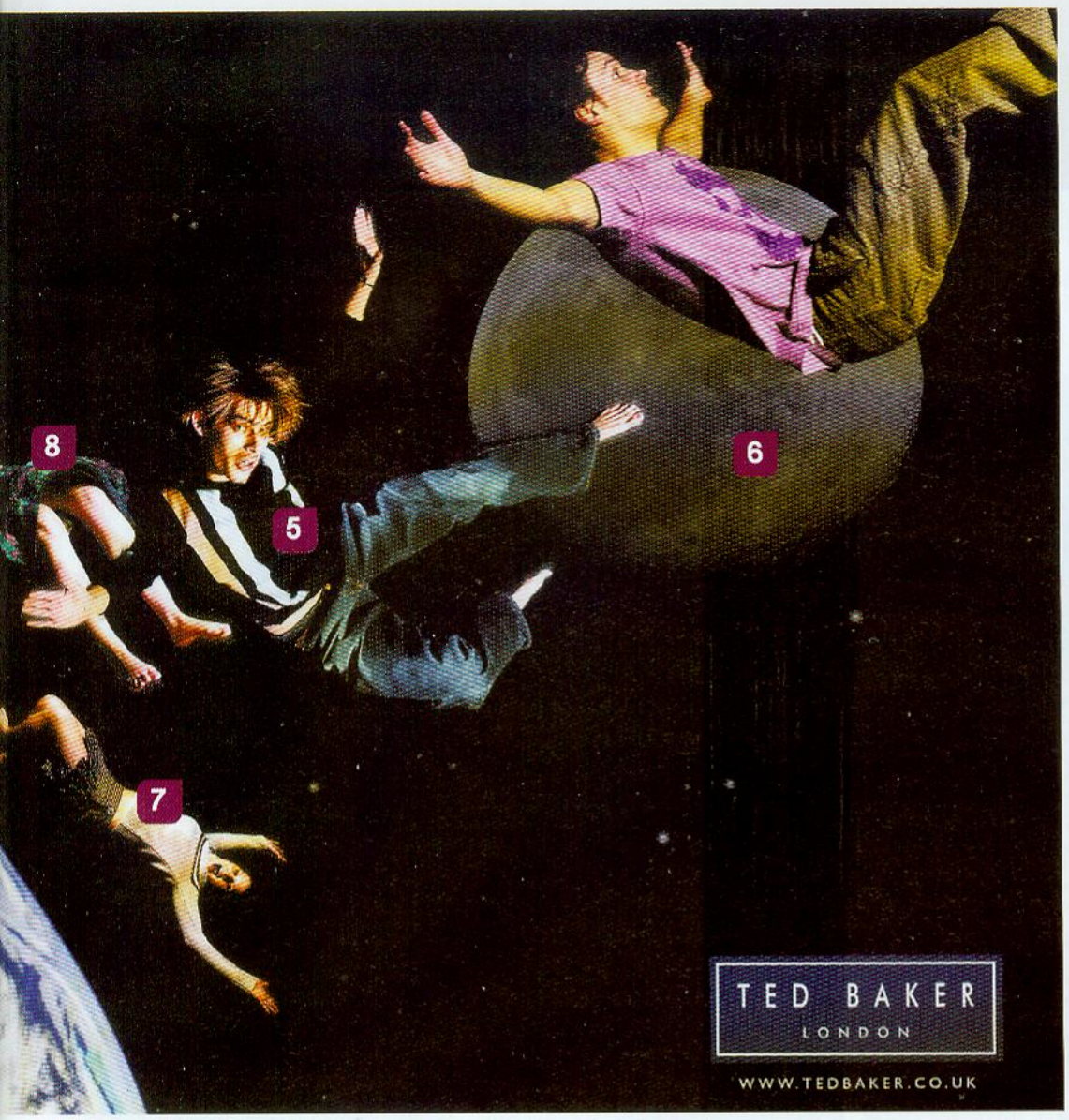
The first task in creating the final composite image is choosing your background. Spend some time finding a strong favourite prior to shooting the subjects which will go over the top of it. This also helps to ensure that the subject is lit correctly throughout the photoshoot and is in keeping with the background. In this case, we also wanted an image of the Earth with good colour saturation to marry up with our 'cross-processed' looking house style.

2 Models

In the tradition of using the best models possible, we got Jess Clements – the Trampolining World Champion – involved in the shoot. As well as pulling off some incredible moves, her invaluable experience helped to guide and protect the gathered trampoline first-timers. By dressing each model in a wide variety of outfits, we increased the layout possibilities in the final composition.

3 Contrast, colour and cutouts

As with a great deal of fashion photography, the look for this Ted Baker advertisement needs to be punchy, exciting, almost over-the-top. A strong contrast was essential to the image, as we had noted from every background image of space we'd searched through. Increasing the colour saturation, levels and contrast of each image therefore became essential before any were placed inside the final composition. Skin smoothing and any other retouching was done at this stage too. It's hard to tell whether there's continuity of colour throughout the whole image until all the parts are in place, so once you're working on the space image in its entirety, additional colour balancing can be performed between each figure. Doing a rough comp of the selected shots in the main comp (before performing time-consuming clipping paths) also ensures that time isn't wasted cutting out inappropriate shots.



4 Poses

As with all shoots, getting the most out of your subject is paramount. A cold November morning isn't ideal for bare-footed trampolining, so the first shots lacked the excitement and daring of those taken after a period of warm-up. Shooting digitally gave us the opportunity to check the shots over the first few hours to see which antics worked best. Firing the shutter as the subject descended seemed to work better than when they were rising off the trampoline, because the movement of both clothing and hair was much more pronounced. Additional manipulation was done where the pose was good, but the hair or clothing needed more movement. Using slight areas of motion blur also helped in this area.

5 Flipped images

Even with almost 1,000 photographs to choose from, the constant changes made to the layout of the finished comp meant that many images needed to be transformed and flipped due to the light source and the shadows cast from different angles. This meant we would still be able to use the best poses even if the models' shadows appeared on the wrong side when laid out in the composite image. This would have been more tricky if any of the clothing had featured text or slogans, but these too could have either been manipulated or re-shot in section.

6 Moon

The image of the moon helps to create a sense of depth in the final composition. This was cut out from the original background image, moved and rotated to maintain the sense of directional light from the top-right corner. Dimming down the brightness also added to the sense of space as well as not battling with the figures in the foreground.

7 Scaling

Having shot all the models in the same setting at the same size, it was important to create our own sense of space, showing the figures as seemingly 'falling' from heaven. The natural flow seemed to be from the right-hand corner towards the earth in the left-hand corner. Scaling the figures to get smaller as they reached earth created a definite sense of them flying from Point A (somewhere out of the frame on the top right-hand side) heading towards Point B (earth) in a tumbling 'out of control' fashion.

8 Adjusting clothing

Because of the large number of models used and the amount of clothing to go round, there was always the likelihood of wanting to use shots of two or more people who may be wearing the same outfit. With tight deadlines, photo manipulation comes into its own and a new outfit is easily born! In this instance, due to the proximity of the matching skirt, a simple mask and hue adjustment avoids a nasty clash and creates a seemingly additional item in the range.

9 Adding stars

To make the background more interesting, stars were drawn in and then blurred slightly to knock them back. An Orion-like image could have been used, made from the clipping paths created to cut out around the models, but we decided against this.

More work from The Walcot Studio...

DIESEL

These two images are preliminary shots from when we first pitched for Diesel. They were digitally shot in the studio on white backgrounds. As a rule, all digital shots will be flat and will need manipulation. These images were improved by adjusting the overall contrast and hue by using Image>Adjustments>Hue/Saturation then Colourise, and bringing the Saturation right down.

PAUL SMITH

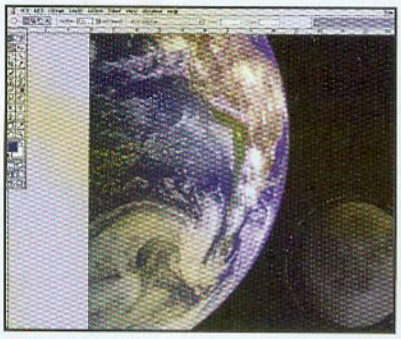
This image was used as part of a proposal for a Paul Smith campaign. It was shot entirely in camera with very little post-production manipulation apart from skin-smoothing techniques detailed in Part 2 of the following tutorial. The background was achieved by footprints laid onto a white Colorama.

DSVR

This ad depicts a power struggle between Sophie and Colin, two fictitious characters. The message the client wanted to convey was a leading question: "Are you in control?" Colin was obviously shot independently from Sophie and added in *Photoshop* during the post-production stage.

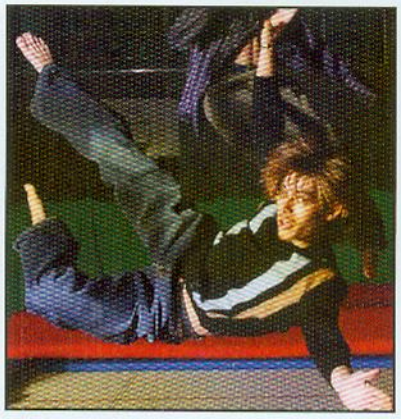
Part 1: Merging the figures into the background

Prepare the background, retouch the clothes, position the figures and smooth the edges...



1 The first thing you need to do is rotate the image 90 degrees anti-clockwise to suit the landscape format of the composite picture. Give the whole background image more punch while at the same time creating a strong, solid black by adjusting the Levels (Image>Adjust>Levels). Bring the left arrow up to around 30. Adjust the Hue of the earth to bring out the blue of the sea (Image>Adjust> Hue/Saturation). Set the Hue to around -20. Cut out the moon with the Lasso tool and cut it onto its own layer so it can be moved independently of the earth (Layer>New>Layer via Cut).

Now you need to create a canvas (for this project, this should be a double-page-spread) by going to Image>Canvas Size. Enter the new dimensions and position the earth and moon accordingly. Create a new layer and sample the black background colour using the Eyedropper tool [I]. Fill the new layer [Option+Delete] and make it the bottom layer.



2 Select the key images from the shoot. Choose the best shots available. In this case, it's important to use the most dynamic images because this will save hours of manipulation later. The crucial lesson here is that while you can work endless magic in *Photoshop*, you don't want to create endless work for yourself. Get a massive headstart by laying your hands on the most suitable image possible for the task ahead.

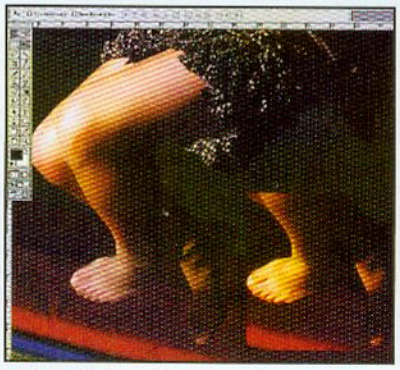
Do simple Lasso [L] cutouts of each figure to get an idea of which images work on the big space image. Play around with the colour and contrast of the figures to see what will work best inside the comp. Then you're ready to start preparing the photos with a process that can be applied to all of them.

3 To create a seemingly cross-processed look to the shot, duplicate the background layer (Layer>Duplicate Layer) and adjust the levels. This can be done in two ways: use Image>Adjustments> Levels, or Auto Levels [Cmnd/Ctrl+L]. Auto Levels is a quick and easy way to correct your image if you don't have specific adjustments in mind. Adjusting the levels creates a depth and contrast to traditionally flat-looking digital shots. Set an Overlay blending mode to your new adjusted layer to see the cross-processed punchy image.

It may still be useful to copy areas of the original image to a new layer in case there's too much burn-out on skin tones or areas of detail you want to add back in later. Make an additional copy of the original background layer using Layer>New>Layer Via Copy [Cmnd+J] and keep it as the bottom layer in your file for safety, and also as a source for retouching. Then merge the top overlaid layer with the layer beneath it by going to Layer>Merge Down [Cmnd +E]. This new layer will be the layer we retouch.

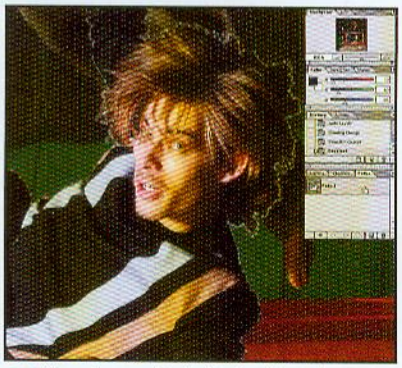
4 If there are any areas that have been burnt out too much, you can introduce some detail. Use the Lasso tool [L] to select these areas from the original layer. This doesn't have to be ultra-precise because you can erase bits later and you'll lose the background altogether once you've cut out the figure. Feather your selection [Option+Cmnd+D] with a 6-pixel radius. Now make a new layer from your selection by going Layer>New>Layer via Copy [Cmnd+J]. Move this layer to the top and set the opacity to around 50 per cent or adjust it until you're happy with the detail burnt back in.

Any areas you don't want are best removed with the Eraser tool [E] set in Airbrush mode with a low pressure of around 30 per cent and a soft round brush set to around 60 pixels. Once you're happy, merge the two top layers using Layer>Merge Down [Cmnd+E]. You still have the original layer at the bottom as a source for further burning-in if needed.



5 Use the Clone Stamp tool [S] to retouch any blemishes or imperfections in the clothes by sampling nearby areas [Option+Click]. Accentuate the make-up by using the Burn tool [O] set to a soft brush with a low exposure setting of around 30 per cent. Here, the model had rolled-down tights which we needed to remove. Using the Clone Stamp tool [S], sample an area of the leg above the roll, being careful to observe where the shadows naturally fall.

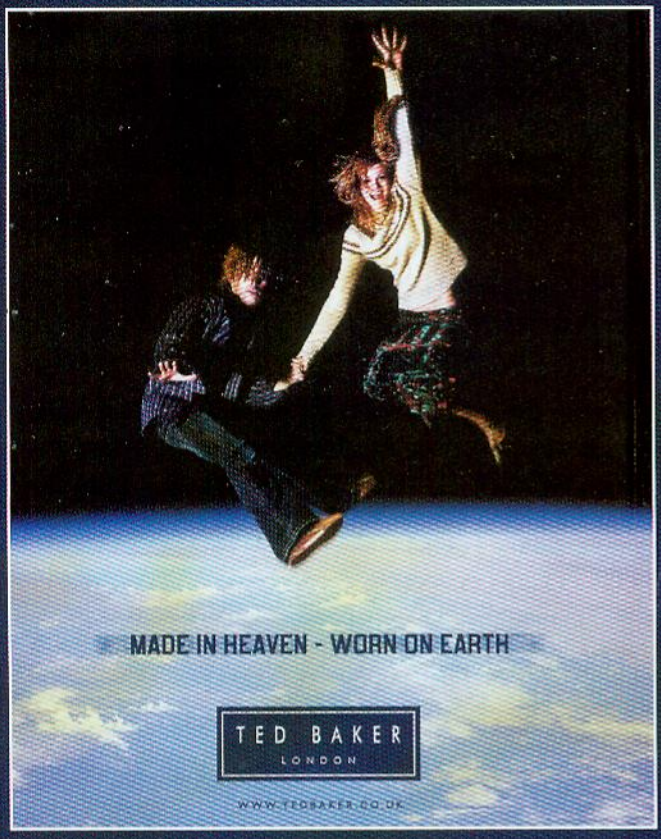
Using a low opacity setting of around 40 per cent and a soft-edged brush will enable you to build up an area to the correct colour and density without going over the top or leaving telltale edges of transition between cloned and uncloned areas. There is almost no end to the possibilities of skin-smoothing and facial retouching that can be done in *Photoshop*, and some of these techniques are covered in Part 2 of this tutorial on page 18.



6 It's not unusual to be hindered by dark, unclear edges when creating a path. This undoubtedly laborious task can be made a bit easier by adding an adjustment layer to brighten the whole image. This lets you see the edges of the item you're cutting out more clearly (Layer>New Adjustment Layer> Brightness/Contrast). Increase the Brightness by about 30. Having a copy of the original layer to refer to also helps you see the edges of the subject before the levels and contrast were increased.

The ideal scenario would be to have a blue screen background on the shoot to make keying out the subject a lot easier, but not having a constant background to our image will only be a problem when it comes to cutting out any hair. When cutting around the hair, it's much better to leave a 'safety zone' of 2-3 pixels around the edge, which can be dealt with and cleaned up inside the final comp.

Making it believable...



One of the main problems when compiling an image made up of several different parts, like this one, is that while you can adjust the scale, position, colour balance, contrast, grain, perspective and numerous other qualities of the adjoining sections that go to make up the final image, it can still appear unbelievable as a whole. However, this doesn't necessarily mean that more and more manipulation needs to be done. The secret is knowing which areas of an image will 'give away' your adjustments, and being aware of a few key points where minimal work will have maximum effect.

We need to fool the eye... *"It deosn't mttaer in waht oredr the ltteers in a wrod are as the hmuan mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe"*. **This illustrates how the eye wanders and prunes information. So when performing photo manipulation, the job is often to make sure that while some areas are heavily accented and punctuated, others can be left entirely. For example, when skin-smoothing it's important not to go too heavily on the eyes or mouth, as this is where any manipulation will be given away.**

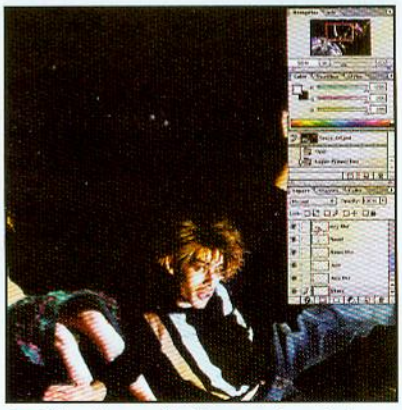
Some parts of this image have been through a long series of processes (areas of hair and sections of the shoes) while certain points (particularly areas sitting on a dark background) have simply been burnt or shaded in. You know when the job is done when your eye believes it!

7 Mask the figure by Cmnd+clicking on the path in the Paths window. To ensure a natural edge to the figure, go to Select>Modify>Contract and set to 2 pixels. Then feather this selection by choosing Select>Feather [Option+Cmnd+D] with a 1-pixel radius. After a few experiments, we decided this gave the best results regarding how real the figures looked when pasted into the main image.

With the Move tool [V], you need to drag the selected figure into the main image. This will appear on its own layer and you can then adjust the position and scale to suit the layout of the final image. In this case, the figure needed to be flipped horizontally to make his left side appear in shadow. Go to Edit>Transform>Flip Horizontally. Scale and Rotate the image [Cmnd+T] into its correct position.

8 Once the figure is pasted into the main image, it's time for the tricky task of smoothing off the edges of the hair and replacing areas that contain the old background. Using the Eraser tool [E], set in Airbrush mode with a pressure of between 30-50 per cent with a soft round brush, and begin to remove 'give-away' edges. This can be a long process, but it's the safest way to get the job done.

Sometimes it's useful to copy an area of hair and move it into a new position, either hiding an area of dense shadow or adding some dynamism to the swing of the hair. Rather than using the Clone tool, mask the area you want to copy using the Lasso tool [L] and Feather the selection by about 6-8 pixels. Copy this onto a new layer with Layer>New>Layer via Copy [Cmnd+J] and move it to its new position, erasing edges delicately to disguise any boundary.

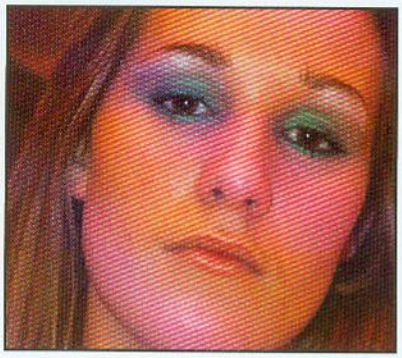


9 A handy way of healing any awkward edges on cutouts is to use motion blur. Highlight the layer of the figure you want to treat. Duplicate the layer and go to Filter>Blur>Motion Blur. Set an angle appropriate to the motion of the pose, and a distance of around 40-60 pixels. Place the blurred layer behind the source layer. Set the Eraser tool [E] to Airbrush mode with a pressure of about 60 per cent and a large soft round brush. Gently remove blur around the torso and waist, where movement is less likely. The most important areas motion blur should appear are around the hands, feet and hair.

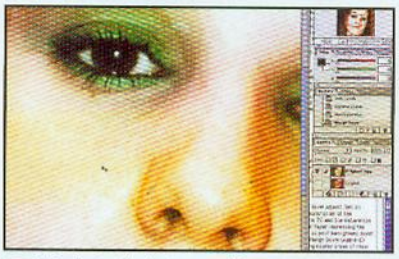
Create a new layer using Layer>New>Layer [Shift+Cmnd+N]. Then use the paint brush to draw a selection of different sized white dots. Set the opacity to 70 per cent.

Part 2: Focussing on the face

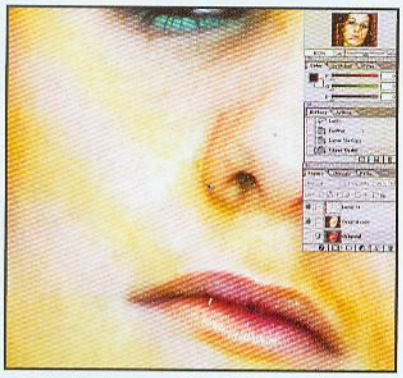
Use layers and the Lasso tool to perfect the model's face...



1 This shot was taken on a digital Leica while the main shoot was in progress. It's a good example of what can be done in *Photoshop* even with a harsh, direct in-camera flash. The colour balance of the skin is magenta-heavy and the overall image is very flat. The make-up should be punching through and there is a glittery quality which could become a real feature.



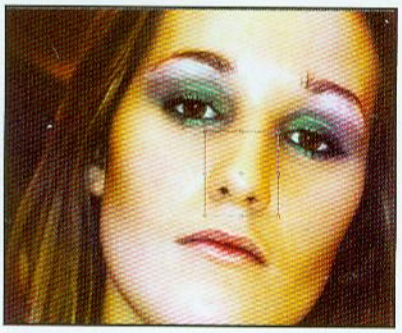
2 Duplicate the background layer (Layer> Duplicate Layer) and Auto Level adjust. Set an Overlay blending mode to your new adjusted layer. Adjust the Saturation of the overlaid image in Image>Adjust>Hue/Saturation. Set the Hue to 70 and the Saturation to 25 in Colourise mode. Make an additional copy of the original layer. Increase the contrast by 30 (Image>Adjust>Brightness/Contrast) and set it as your background layer. Merge the top overlaid layer with the layer beneath it by going to Layer>Merge Down [Cmnd+E]. Remove any obvious blemishes using the Clone tool [S] sampling nearby areas of clear skin [Option+click].



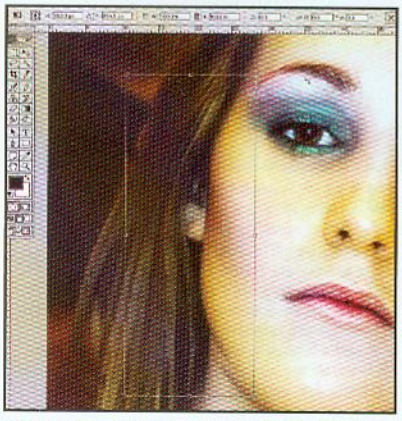
3 On the top layer, using the Erase tool [E] in Airbrush mode, gently take out the eyes and lips to reveal the original make-up colourisation on the layer underneath. Use a soft round brush with a low pressure to do this. Make another duplicate of the original layer and leave it at the bottom for later. Now merge the two top layers.

4 Duplicate the new merged layer and go to Filter>Noise>Median, setting the radius to 16 pixels. Set the new layer's opacity to 80 per cent and gradually erase the areas around the eyes, mouth and nostrils. It's also important to erase almost all the Median layer over the hair. Merge the two layers again.

5 Use the Lasso tool [L] to draw around the iris of each eye. Feather by 1-2 pixels. Lighten the shade of brown using Image>Adjust>Brightness/Contrast. Set the brightness to 15. Deselect the mask [Cmnd+D] and burn in the eyelashes with the Burn tool [O].



6 With the Lasso tool again, draw around the bottom of the nose and feather by 8 pixels. Copy this selection to a new layer [Cmnd+J]. Reduce the size of the nose on the new layer using Free Transform [Cmnd+T] until you're happy with its position and scale. On the source layer, use the Clone tool [S] to remove any visible signs of the old nostrils.



7 Draw a mask with the Lasso around the left cheekbone and hair. Feather by 12-16 pixels. Make a new layer via copy [Cmnd+J]. Place this as the top layer and, using the Move tool [V], move it inwards.

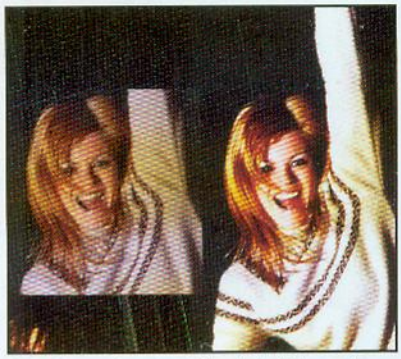
8 Draw a mask with the Lasso tool around the chin and neck. Again, feather by 12-16 pixels and make a new layer via copy [Cmnd+J]. Move the new layer up slightly. When this is in the correct position, merge the layer with the original layer beneath it.

9 All that's needed now is to copy areas underneath the chin to make the neck. This can be done by using the Lasso tool to select similar areas and rotating them into the new areas. If a copied area is slightly too light or dark, use Image>Adjust>Hue/Saturation and toggle the lightness setting until any give-away borders disappear. Use the Clone tool [S] to smooth out any remaining gaps in the neck.

Part 3: Finishing touches

Make some adjustments to the moon, hair and shoe. Then add a company logo...

1 Select the moon from the master background image using the Lasso tool [L] and copy it onto its own layer [Cmnd+J]. Turn the new layer off and clone out the moon on the original layer. This now enables us to move the moon anywhere in the composition or lose it altogether.

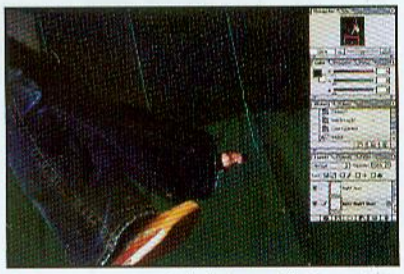


2 Now work on the picture to be laid over the master image. Get the picture looking punchy and well saturated by following the steps outlined in Part 2, Step 2 on the opposite page. Again, you can clone out the worst of any blemishes and then use some of the skin-smoothing techniques previously mentioned, using a Median-filtered overlaid layer.

3 Having laid out a roughly-cut-out version of the two figures over the master image, it was decided that the hair should look a bit more chaotic. This means finding some hair from elsewhere and adding it to our model. Loosely cut the new hair from the source shot with the Lasso and drag it onto the image. Once it's in, rotate and position it using Free Transform [Cmnd+T] and marry up the grain of the two using Filter>Noise>Add Noise in Gaussian mode at around 3-4 per cent. Erase unwanted areas to create a smooth transition.

4 Now we need to add shoes to our bare-footed models. We photographed the shoes separately, referring to the poses for angles and lighting. Select the nearest match and perform the same cross-processing routine to the photo exactly as you've done before. This will ensure a matching colour balance between the figures and shoes. Drag the shoe into the main image.

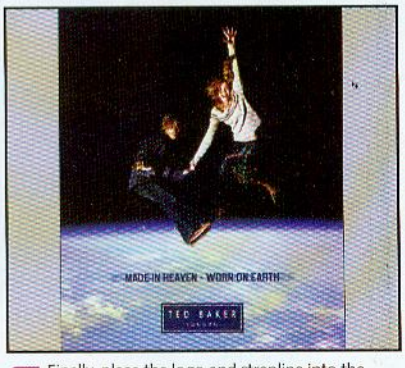
5 Remove the fingers holding the shoe and clone the straps back in. Cut out different sections of the shoe onto separate layers (Layer>New>Layer via Cut) to begin rebuilding the shoe around the foot. Use Free Transform [Cmnd+T] to adjust the angle/skew/scale. A combination of feathering and erasing will ensure smooth transitions. This is quite a painterly process and you'll have to keep checking at low zoom to see when it's all working.



6 Copy a section of the bottom of the jeans to fall back over the shoe. This can be done with the Lasso or you can draw a path with the Pen tool [P]. With the jeans on a new layer, move the shoe into position. Once it's in position, begin to burn in a shadow over the top of the shoe. Use the Burn tool [O] or Airbrush [J] with a black colour and very low pressure. Ensure the layer's transparency is locked to avoid unwanted dark areas outside the shoe. Merge all the new layers together, keeping the main image layer separate.

7 Cut out the figures with the Pen tool [P] and then Cmnd+click the path to select them and copy them onto a new layer. Keeping the new hair-and-shoes layer separate will make the job of pasting the finished picture into the main comp a lot easier. Merge this layer with the cut-out figures layer only when you're ready to drag the whole thing into the final picture.

8 Position the figures centrally in the main image. Now that the hair is in place, you can tidy up any edges with the Erase and Burn tools, both set at low pressures. Adding motion blur to the hands and hair really helped in this shot. Overlay some blur in front of, as well as behind, the static layer, because this can particularly help the transition between the hair and background.



9 Finally, place the logo and strapline into the image. This can also be done inside your layout program (*XPress* or *InDesign*), but we wanted to add a slight horizontal motion blur to the text so we added this in the *Photoshop* document. Using the Eyedropper tool [I], select a colour from the blue haze over the earth and use this as the fill colour for the text. Your manipulation work is now done. cap

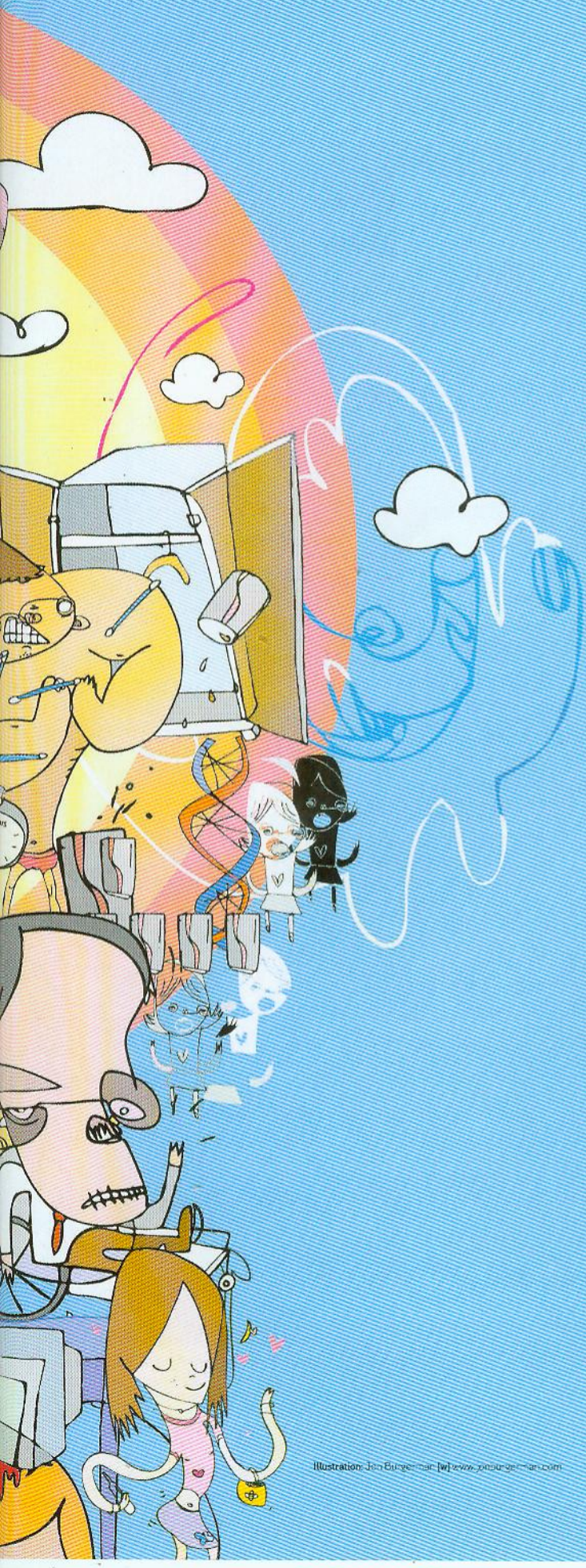


Illustration: Jon Burgerman [w] www.jonburgerman.com

SECTION **TWO**

Creating a vector illustration

Vector illustrations can be coloured, transformed and modified with relative ease. Jon Burgerman explains how he created a poster image for Don't Panic...

Don't Panic is a media distribution company and print and design house. It produces flyer packs often crammed full of goodies and a large fold-out poster. Every two weeks, a new pack is released around top nightspots, bars and universities in the UK. Previous poster luminaries include Dr Parsons, Baku, Pete Fowler, Neil McFarland, Shin and Banksy. It was, of course, very nice of Don't Panic to ask me to produce some artwork for them.

The text 'Send in the Clones' (which you can see in full over the page) was written by Gary Muscle and The Ratboy Pimp and emailed to me at the beginning of the job. The amusing text took the form of a news report about recent advancements in cloning. "We were just examining the potential of cloning in a lighthearted and almost entirely vacuous way," claimed Don't Panic.

Broken up into six separate parts, the text featured cloned characters such as the Jesus Andrex Puppy, The Diet Coke Man, The Uber-Daughter (a mix between Kate Moss and Stephen Hawkins) and the Tourettes Bonobo. The humour of the piece obviously had to be reflected in the images, and the whole thing had to be appealing enough for someone to want to hang it up on their wall.

I chose to convert my usual drawings into vector objects for the job to aid working with high amounts of illustrated elements and to enable me to make changes quickly. The timeframe for completion was about five weeks, which was then cut to six days about twelve days into the job.

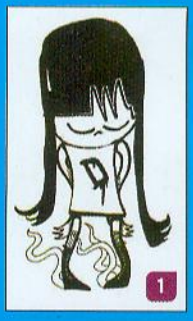
Expertise provided by Jon Burgerman. Visit his site at **[w]** www.jonburgerman.com and contact him at **[e]** fries@jonburgerman.com. Don't Panic can be found at **[w]** www.dontpanicmedia.com

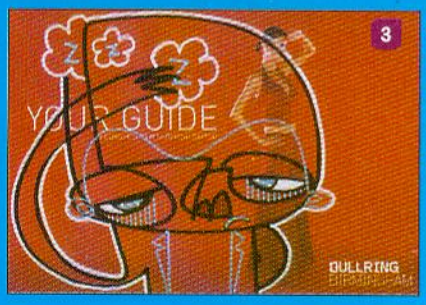
Jon Burgerman

Jon Burgerman was loosely educated in the field of Fine Art at the Nottingham Trent University and graduated in 2001. Since then he has mainly been lazing around on the sofa scrawling crude doodles into his notebook. He's been lucky enough to complete work for some nice people and companies, spreading his insidious drawings and irreverent characters around the globe. Jon also shows his non-computer cardboard- and paper-based paintings and drawings in exhibitions.

The process of creating his work is simple: sketchbook drawings are pooled together and are then taken to the computer for cleansing and buffing. His goals for the future include starting up the first School of Doodle, where he can train people to work in a similar way and then seek early retirement and get back to the sofa. He'd also really like to own an iPod.

Jon Burgerman's recent work includes:





1. Doodles in *Pictoplasma 2*.

2. Drawings for Levi's 501 anniversary.

3. Artwork for the Modern Pets exhibition in Japan.

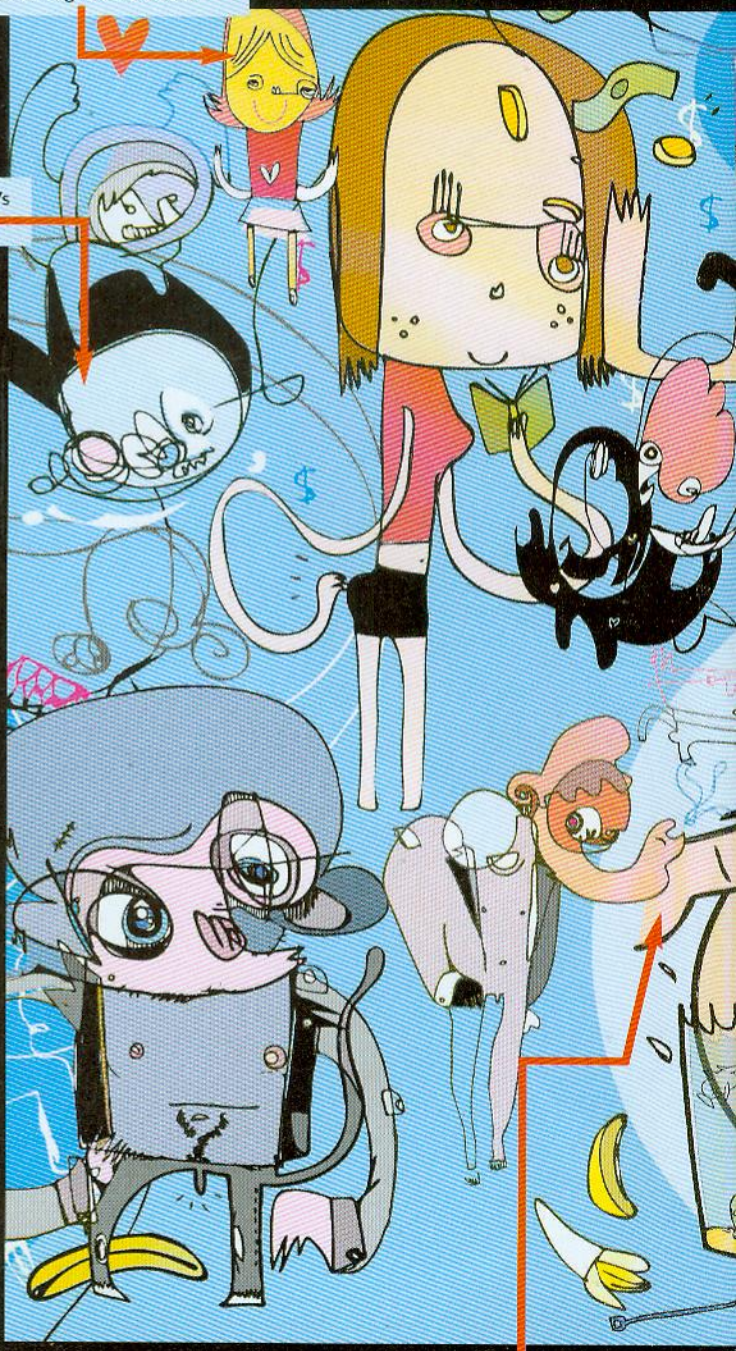
- Sleeve art for Charles Webster LP, *Remixed On The 24th Of July*.
- Drawing for *This Is A Magazine, Compendium Two*.
- Poster for Don't Panic Media.
- Drawings for *Faesthetic* magazine, 2003 edition.
- Characters for Arts-Council-funded publication *Spread The Word*.
- Illustration for *SL Magazine* in South Africa.
- Various illustrations for *.net* magazine.
- Card cutouts for *Sleazenation*.
- Drawings for Wieden And Kennedy ad campaign for Gortex.

For more information about Jon and his work, visit [w] www.jonburgerman.com and [w] www.biro-web.com. He can be contacted at [e] fries@jonburgerman.com

Burgerman talks vectors...

This character was treated in the normal way. She then had her insides moved slightly away from her outlines to create an off-registration effect.

I'm not sure what's going on here.



Don't Panic printed and distributed this poster as part of its media pack sometime in November 2003. Contact Jon Burgerman if you'd like to get hold of a copy.

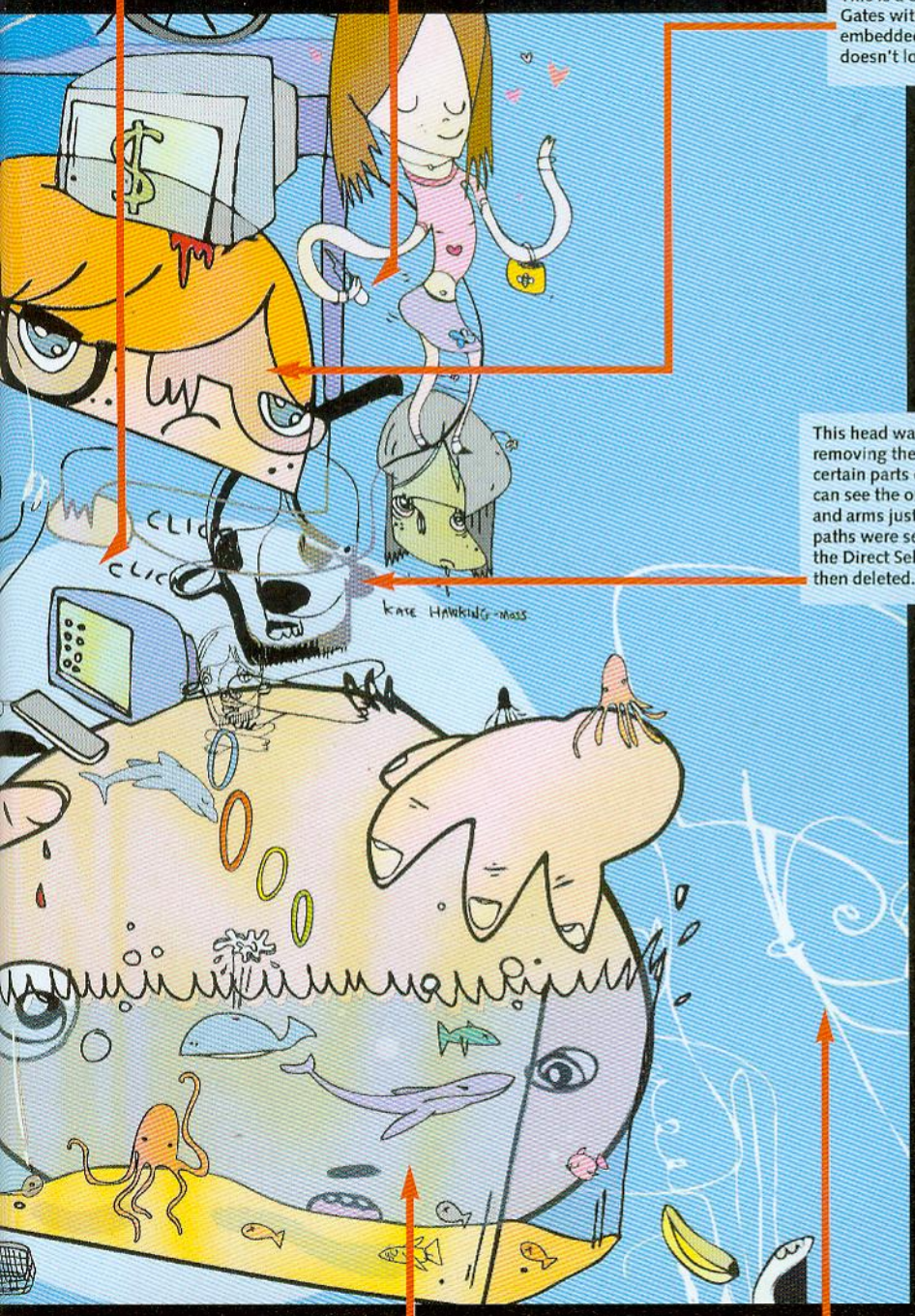
Error 2: This is something I should have fixed – it really annoys me that I left it as it is. The finger has a very crude end to its shape. Ideally, it should have been redrawn in a more complete form, or hidden by another object.

Simple geometric forms with flat colours help unify and connect disparate elements. Here, they can be seen moving throughout the Uber-Daughter section to the Mini Home aquarium.

Error 1: An open object which should have been closed from early on in the bitmap process. If the bottle had been closed after it was scanned, it wouldn't have lost its interior.

This is a drawing of Bill Gates with a PC monitor embedded in his head. He doesn't look too happy.

This head was created by removing the inner lining of certain parts of its form. You can see the original head and arms just below it. The paths were selected using the Direct Selection tool and then deleted.



Transparency effects were used on the water to make it look translucent. This is achieved easily by reducing the opacity percentage of the object in the Transparency palette. Photoshop-style effects such as Colour Burn and Overlay are also available in this palette.

The monocolour knock-out sections featured in the poster hark back to traditional screenprinting effects.

SEND IN THE CLONES

by Gary Muscle and The Ratboy Pimp

Incoming transmission>>>

...has been revealed that scientists in China have, for the first time, used cloning techniques to create hybrid embryos that contain a mix of DNA from both humans and rabbits. These hybrids were made for embryonic stem cells to be used in research and, eventually, medicine.

Future applications include:

YOURSELF

Obvious advantages: Time off work (unlimited). Avoidance of appointments with in-laws. Court appearances, community service (note: may appeal to Mark Morrison, self-styled 'King of Leicester'). Performance of menial tasks such as love-making with partner (drunk). **Points of caution:** Clone gaining upper-hand. **Worst case scenario:** Problem of physical self overpowering, to whit, kicking one's own ass.

THE DIET COKE MAN

Appeal: Lack of suitably attractive males in vicinity. **Process:** Gaining DNA sample of suitable clone (subtle swab with cotton bud). **Suggestions for growth:** In twenties, start process in a cupboard, aiming for his maturation from embryo in 20 years' time. **Use:** Pleasure on tap from a socially inept hunk hung like a white rhino.

THE JESUS ANDREX PUPPY

Appeal: Universal human inability to resist a golden retriever puppy with piece of toilet paper wrapped around head. Jesus generally regarded to be a 'nice bloke'. **Problem:** Appropriation of Jesus's DNA. **Solution:** Turin Shroud. **Outcome:** Cute, playful companion who can walk on water, heal the sick and has direct line to the Almighty.

THE UBER-DAUGHTER

Ideal qualities: As intelligent as Stephen Hawking, as enterprising as Bill Gates and as fit as Kate Moss. **Outcome:** Will look a million dollars, worth a hundred times that, marry into high society and live in a groovy walled compound. **Caution:** Could turn out as enterprising as Bill Gates, as intelligent as Kate Moss and as fit as Stephen Hawking. **Added bonus:** Add some spare Jesus DNA. Or Andrex puppy.

THE TOURETTES BONOBO

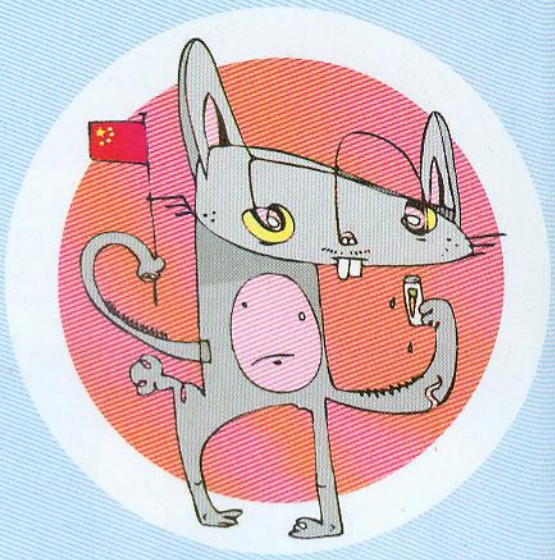
Use: Entertainment and novelty. **DNA required:** That bloke called John who's 'not mad', a rampant sex monkey. **Result:** Supercharged 24-hour libidinous oddball that will shout 'c**t' at passers-by before furiously chopping off their ear. For misanthropes only.

MINI-WHALES AND THE EXOTIC HOME AQUARIUM

Problem: Goldfish regarded as 'boring', 'stupid' and 'a bit shit, really'. **Solution:** 4-inch blue whale that jumps through hoops on command. **Expansion possibilities:** Entire Pacific Ocean — tiny shoals of dolphins, tiger sharks, sea turtles, two-inch 'giant' squids and some miniature human divers. **Further possibilities:** Add two drops of human blood — sit back and enjoy the spectacle.

<<<end transmission

Ten expert tips



1 Keep a sketchbook

Plan ahead and learn from others. Being a computer whizz or having the best equipment doesn't mean you'll be a good illustrator or designer. Work out ideas in your sketchbook and keep a scrapbook of work examples that you find particularly inspiring.

2 Customise your workspace

Set up your programs to suit your way of working. Explore the Preferences options and customise the brush shapes and unit measurements. Make sure the page size is appropriate for your current project and alter the grid settings to assist your layout.

3 Use space wisely

Set up grids and rulers to help organise and lay out your project. Negative space around text and objects should be balanced and carefully weighted. Space is a luxury; try not to cram too much into a space nor space everything out too much. Refer to pieces of work you like and see how the designers have utilised the space to good effect.

4 Impressive shortcuts

Learn all the shortcuts for your preferred programs and create your own user-defined ones. Commit them to memory and show off at parties by recounting how to Free Transform and Blend in two easy taps of the keyboard. Popularity and admiration from the opposite sex will be yours in no time.

5 Help files can help

Be sure to check your vector program's manufacturer's Website for updates and help files. Use the help files included with the program to solve nagging problems or discover new options you never knew existed. If there's something in the Tools palette you never use, find out what it is — it might be really handy.

6 Experiment with shapes

Create shapes out of primitive shapes. By using pathfinder tools such as Unite and Exclude, you can produce intricate and uniform shapes very quickly. Add a touch of dynamism to your shapes by using Free Transform tools. Used cleverly, skewing objects and text can add an extra element of perspective to your work. Modify stroke thickness to lead the viewer's eye to pertinent areas of your work and to add variety across the piece.

7 Use step-and-repeat

Generate quick backdrops and structures by experimenting with step-and-repeat functions. Apply it to object transformations and rotations to produce spiralling patterns. Use the Define Pattern feature to apply patterns as fills for objects. This can be handy when there are limited colours available and shading is needed.

8 Combine vectors and bitmaps

Mix things up by importing bitmaps with vectors. Interesting results can be found by using *Photoshop* images within *Illustrator*. Texture and grain are often difficult to reproduce solely with vectors. Make sure files are embedded before print.

9 Colour matching

When working on a project, make sure the document's colour mode and colour palette is set up for the job at hand: CMYK for print, RGB for screen, and Web Safe for the Web. This should save you the frustration of off-colours in the final output of your work. Use the handy Save for Web option to generate quick GIFs and JPEGs.

10 Check carefully

Keep an eye out for stray anchor points and text fields. From a distance, they might not be noticeable; but if your work is going to be blown up, they may end up ruining it. Before sending your work to the printers, scour it for strays and any other superfluous elements. Make sure that layers are in the correct order and that guides and notes not required for print are clearly labelled and in their own print-disabled layer.

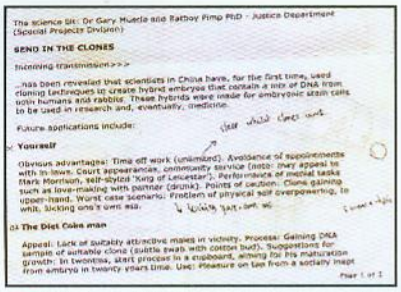
Visit Jon's Websites to get the full effect of his quirky characters.

Part 1: Hail to the brief

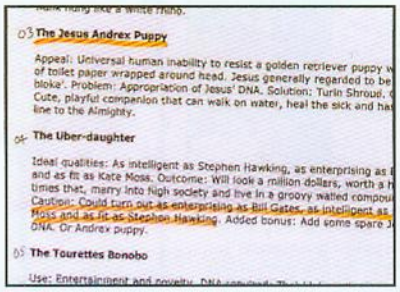
Get started and think about how to avoid thinking...

Choose vectors

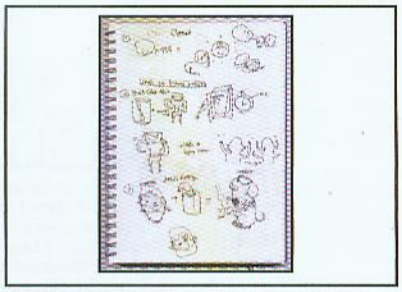
The practicalities of producing an A2 poster featuring text and a jumble of images have made me decide to use vectors. Vectors are generally lighter than bitmap images. They can be coloured, transformed and modified with relative ease, allowing for quick editing and rash changes-of-mind midway through a project.



1 What an apt job title: Send in the Clones. The text was emailed to me, I read it a couple of times and then collapsed onto my keyboard. Out came the pens, paper, Paracetamol and panic. As with all briefs, I read it and re-read it several times, hoping to unearth a secret message informing me of the best plan of action.



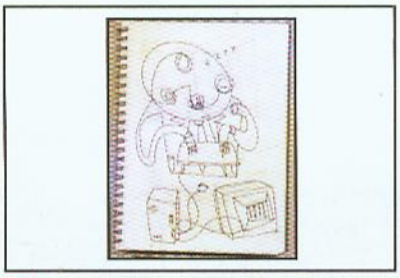
2 Thankfully, the text accompanying my poster was full of illustrative descriptions and it was funny, which was far better than some dry corporate guff explaining why a logo needs to be uplifting and motivating. I panned over the text again, picking out relevant and obvious points to illustrate. These would form the backbone of the poster.



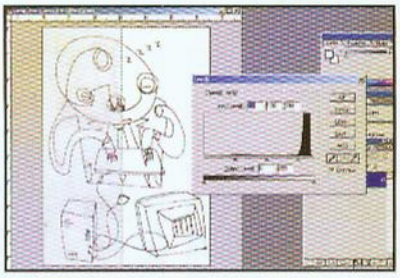
3 The text was in six sections, allowing for easy dissection. Taking each section as a separate brief on its own, I made some quick doodles to serve as visual notes to how I was going to illustrate them. This meant I could stop thinking early on in the job (always handy) and focus on the application of the drawings and the overall composition.

Part 2: Drawing and cleaning up in Photoshop

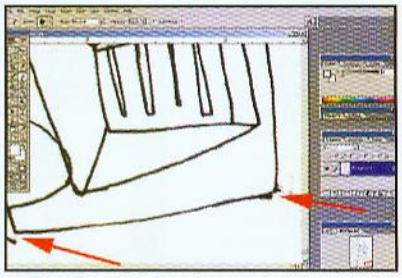
Prepare images before converting them into vector objects...



1 For a poster of so many parts, I felt it was going to be difficult to create one large image on paper in one go. Instead, I decided to illustrate each section and scenario separately and bring them together later on. The composition would be formed when more of the major elements had been created. After a heavy session of tea, biscuits and doodling, I scanned my work into *Photoshop* ready to be cleaned up prior to doing any vector work.



2 The images were scanned at 300dpi as greyscales. First, to tidy up the grain of the sketchbook, I upped the contrast using Levels (Image>Adjust>Levels). By pulling the right-hand marker, the image is bleached out a little. The left-hand marker, when moved up towards the middle, darkens the image. By balancing up these two markers, the image can be sharpened and cleaned of smudges, and the black lines are reinforced.



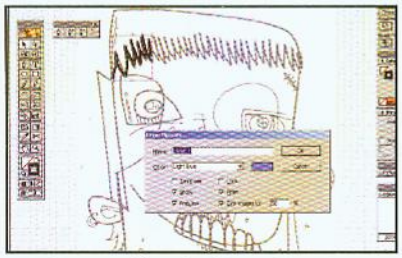
3 To complete the clean-up process, a closer inspection is needed. Zoom in using the Navigator or by pressing Ctrl+Spacebar (use Ctrl+Spacebar+Alt to zoom out again). Look around the image for further interruptions to the lines and use the Pen tool (press B or select it in the toolbar) to help close any areas that shouldn't be open – like characters' heads or bodies. Having sharp, clean images will help when converting them into vectors.

Part 3: Converting bitmaps to vectors

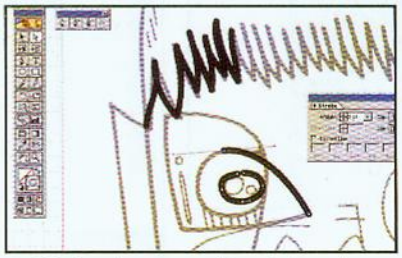
Different techniques for converting bitmaps, and choosing the right one for the job...

Simplifying matters

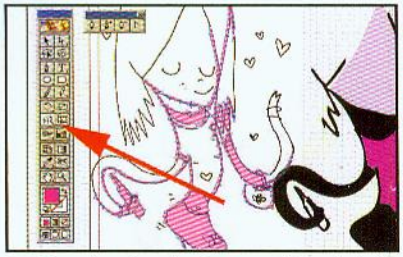
The more points in your image, the greater the file size is going to be. If you want to further reduce the file size of your vector object, try Object>Path>Simplify. Simplifying by even a tiny percentage can shave off huge amounts of points in a complicated object, with very little alteration to its appearance.



1 One way of changing bitmaps into vectors is to import the image into *Illustrator* using File>Place and lock it in a layer. Then create a layer above it and trace around the drawing using either the freehand Pencil tool [N] or the point-plotting Pen tool [P]. It can be useful to dim the bitmap you're tracing from – double-click the layer it's in and tick the 'Dim Images to' box and enter a percentage.



2 Tracing gives you complete control over the outcome and, more importantly, creates lines with which you can vary the strokes. Vector objects have a shape or fill and an outside border. This border can be a colour different from the rest of the shape and have different thicknesses and styles (Strokes) applied to it. This is a popular approach, allowing for the creation of smooth bordered images.

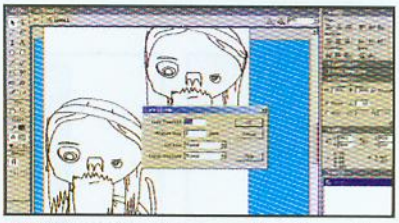


3 Even though my drawings are a bit wonky, I still want to be able to colour them in and have them as vectors. *Illustrator* has vectorising capabilities with the Auto Trace tool, which resides under the Blend tool [W] in the floating Tools toolbar. Click on the edge of an imported bitmap and the Auto Trace tool will attempt to create an outline around it. Its preferences can be altered in File>Preferences.

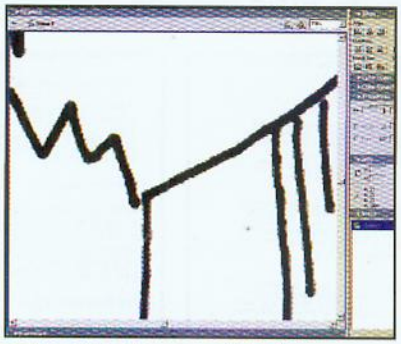
Converting bitmaps to vectors continued...

Quick as a flash

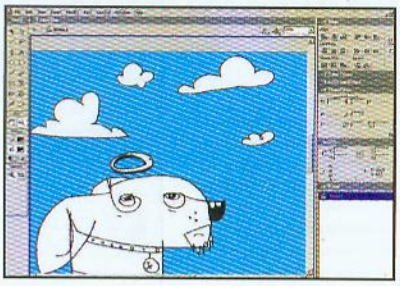
Using *Flash* to convert bitmaps to vectors might seem a little unorthodox, but with a little trial and error, you can get a nice clean vector object from your bitmap. When working within tight deadlines with a high volume of bitmaps in need of converting, there's going to be a decision over efficiency and speed. If just one bitmap needed converting and it was something like a logo, I would probably recommend taking a more careful approach and tracing it in *Illustrator*.



4 *Flash* can be used for converting bitmaps into vector objects. Import the bitmap by pressing Ctrl+R and make sure it's selected before clicking Modify>Trace Bitmap. An option box appears. In it, Colour Threshold refers to the difference in RGB colour value between two pixels. If the difference between the two pixels is less than the number specified as the Colour Threshold then *Flash* will consider them as the same colour. If the Colour Threshold value is raised, the number of colours in the newly formed vector object will diminish. The Minimum Area, which corresponds to the Colour Threshold, is the minimum number of pixels *Flash* will take into account when calculating a colour for a pixel. There's also Curve Fit and Corner Threshold.



5 I want to get clean smooth lines from my bitmaps. If the Trace Bitmap options are too tight, the lines become jagged and bumpy. Often you have to zoom in [Ctrl+Spacebar] to get a proper look at the edges. If the tracing is too loose, however, the object will lose its form and be too simplified. For my drawings, I'm searching for a happy compromise between the two. I still want the images to look hand-drawn and smooth but not immaculate.



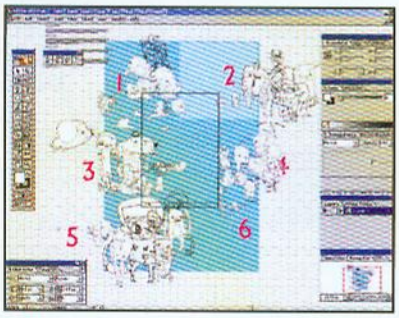
6 I want the outlines to be solid black with no pools of grey. I also want to remove the white background from the image but retain the solid colour within the lines. The majority of the external white can be selected and removed by pressing Delete. By using the Paint Bucket tool [K] and selecting a bright colour and clicking on the outlines, you can see what has been converted and what needs to be filled with black. Re-colouring all the lines a uniform black will help reduce the overall path count and the file size. The image can now be exported to *Illustrator* using File>Export Image.

Part 4: Compositional layouts

Create compositions on the hop, add text and be flexible enough to accommodate changes-of-mind...

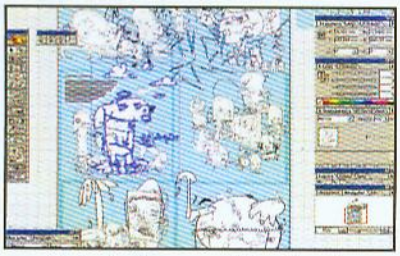
Layer shortcuts

There are a few things worth remembering when working in *Illustrator*. Bringing objects back and forth in their layer can be done by pressing Ctrl+[to move objects back and Ctrl+] to bring objects to the front. To make an object jump to the top or bottom of its layers order, use Ctrl+Shift+[and Ctrl+Shift+] respectively.



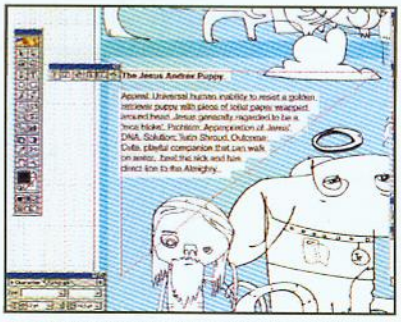
1 Usually, I would work out the composition of a piece before starting work on anything else. Due to the nature of the poster with its need to accommodate boxes of text and possibly a competition or advert, I need to be flexible. Working out little set-pieces of composition and then slotting them into the overall layout is a useful tactic to use.

2 I took the individual parts for each of the six sections of the poster into its own *Illustrator* document. The idea was that each section would sit within its own autonomous square on the poster, which would be marked out by the creases in its folds. This would create a comic strip or storyboard effect, with the accompanying text also being shown in the square. Labelling of the layers, by double-clicking on the layer in question, can be useful when bringing all the sections back together again.



3 Moving the pieces around the artboard in *Illustrator* with the black arrow Selection tool [V] is pretty easy. A few points worth remembering include the group function [Ctrl+G] and ungroup [Ctrl+Shift+G]. Organise the layers so you can turn certain elements on and off by toggling the small eye icon in the floating Layers palette. You can also lock a whole layer by clicking in the square next to the eye icon or lock individual objects by clicking Object>Lock or Ctrl+2. To unlock, click Object> Unlock All or Ctrl+Alt+2.

4 Balancing text with images is always an interesting task, especially on a poster. On the one hand, the poster should be appealing from a distance, suggesting that the images should take precedence over the text. Without the text, however, the images won't have as much relevance. This poster isn't advertising an event – its main function is to look good and be entertaining to read. With this in mind, I've tried to give equal balance to both image and text.

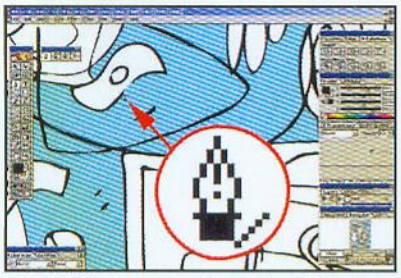


5 Text can be added to the poster by typing directly onto the layout with the Type tool [T]. To get text to wrap within a shape, plot the shape first using either a pre-defined polygon shape like the Ellipse tool [L] or the Pen tool [P]. Then select the Area Type tool, which is within the Type tools, and click on the path of your drawn shape.

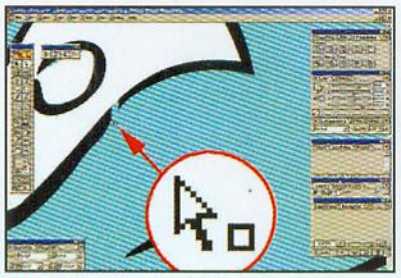
6 It's around this stage in the project, when everything is going well and there's still plenty of time, that I decide nothing is working and the composition should be changed. Against my initial instincts, I decide that the storyboard layout approach is not going to make for a good poster. Rather than segregate the six sections of the text, I feel that the poster would be more impressive if everything was intermingled (as above). As I had grouped and organised the images proficiently beforehand, re-jigging it wasn't too much work.

Part 5: Technical bits

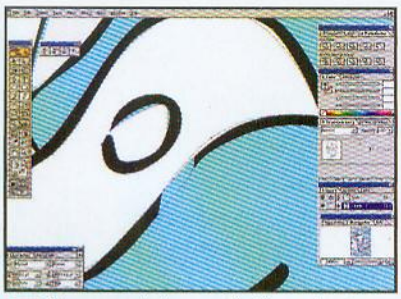
Close paths, amend and edit shapes, and add colour to the composition...



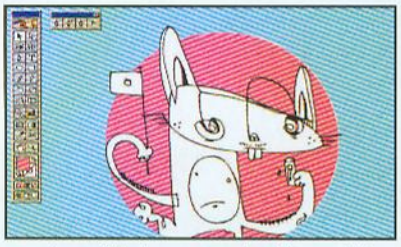
1 With the new composition in place, it's time to look for any stray anchor points and repair any objects that aren't complete. Linking two open end-points can be done with the Pen tool [P]. Hover the cursor over one open end and you'll notice a small line appearing under the cursor. Click, and the Path tool takes that point as the last one you've plotted. If you want to join it to another end-point, hover the cursor over it until you see a closed circle icon indicating that clicking will join the paths and complete the shape.



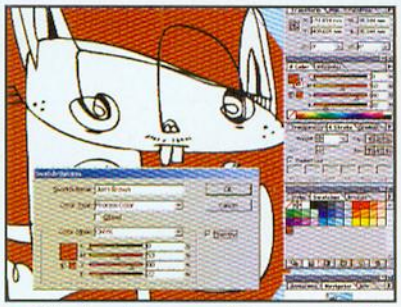
2 Paths can also be joined by selecting two open end-points and clicking Object>Path>Join or Ctrl+J. Select one open point with the white arrow (a.k.a. the Direct Selection tool [A]). The arrow will have a small white square underneath it to indicate a point is being selected. While holding down Shift, select another end-point. Press Ctrl+J and they'll be joined together with a path. It's also possible to drag a marquee through two open points to select them at the same time. It helps if the points are close together.



3 Shapes can also be amended by re-drawing over them using the Pencil tool [N]. Select the shape in question and then the Pencil tool and drag the tool freehand until you've altered the path. This does not guarantee closing end-points and can in fact change closed paths to open ones, but it's a useful trick when you want to just tweak or smooth out an existing closed path. If you make a mistake, just press Ctrl+Z to undo.



4 Some of the images, or parts of them, might need to be cropped out. This can be done in a few ways. One would be to use the Scissors tool [C] to cut through paths, breaking them up and then deleting them. A quicker way is to create a Clipping Mask. Create a shape over a chosen object, select them both and click Object>Clipping Mask>Make or Ctrl+7. Clipping Masks can be any shape, though if they're too complicated, it can cause printing problems. To release the masked objects, click Object>Clipping Mask>Release or Ctrl+Alt+7.

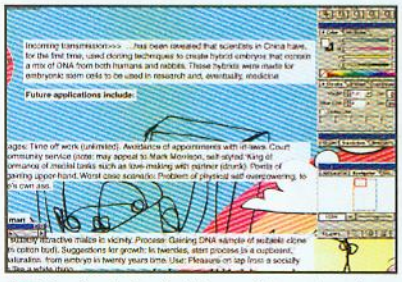


5 The characters now need to be coloured in. The black outlines of the drawings are not strokes but filled shapes, a disadvantage of tracing bitmaps in *Flash*. If the white interiors of the converted bitmaps had been removed back when making them in *Flash*, separate shapes would have been needed to slot into the holes. As I left the white in there, I can simply re-colour those and save a lot of time.

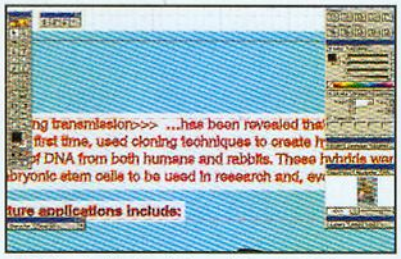
6 It can be helpful to build up your own custom selection of swatches to refer back to when you're colouring in. Drag your mixed colour from the Colour palette into the Swatches palette. Double-clicking on the swatch will bring up its details and you can rename it. Working within a fixed Colour palette can help keep the scheme of your work harmonious and consistent. Using the Transparency palette can also yield pleasant results.

Part 6: Polishing up the piece

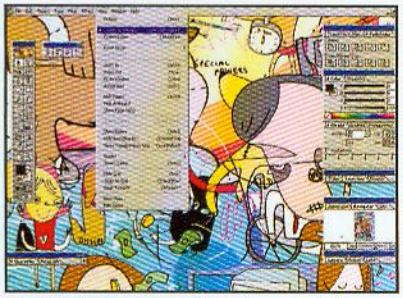
Double-checking the copy and previewing the results...



1 Coming to the final throes of the poster, all that's left is a bit of double-checking here and there: proof-reading the text, checking contact details and adding credits are obvious must-do's. Zoom into the image and make sure the image elements are as they should be (it can be all too easy to accidentally move objects unless they're locked down [Ctrl+2]). When zoomed in, navigate around the page by holding the Spacebar down and dragging the cursor.


ng transmission>>> ...has been revealed that
first time, used cloning techniques to create h
of DNA from both humans and rabbits. These hybrids wer
bryonic stem cells to be used in research and, ev
ture applications include:

2 Check all is dandy by switching to Outline View [Ctrl+Y] and deleting any stray paths and empty text fields. If the text has been created in a font unlikely to be native on the printer's computer (you may have purchased it especially for this job) it's good practice to convert all text to outlines. Highlight the desired text with the Selection tool and click Type>Create Outlines or Ctrl+Shift+O. This means that the program now considers all the text to be a shape, and the font will not need to be installed on the printer's computer.



3 Finally, make sure that the layers are in the correct order, all are visible and they're available to print. Viewing the document in Overprint Preview (View>Overprint Preview or Ctrl+Shift+Alt+Y) shows an estimated idea of how transparency effects, gradients and colours will appear in a colour-separated output. A similar preview can be obtained for screen-based work by clicking View>Pixel Preview or Ctrl+Alt+Y. ca>p

SECTION **THREE**

Making a 3D scene

Studio Liddell shows you how to combine Lego characters, natural media and humour to build a 3D image...

There's no doubt that 3D modelling and rendering software can add that extra dimension of reality to illustrations, even when the subject is pure fantasy! This 'Lego' image, which brings a Bionicle together with a very different Lego universe to explosive effect, was created by Andy Jones of Studio Liddell as a piece of self-promotion for 2004. He explains that he was aiming to create something that appeared slightly different by using some natural media and a sense of humour!

In the tutorial on the next few pages, he shows you some of the techniques which can give even this kind of subject that extra touch of solidity, making the Bionicle figure 'pop' from its surroundings, as well as the rendering and compositing tricks which give the scene that all-important air of realism. Before that, though, he explains the thinking that goes into a more naturalistic image, a stunning 3D render of a fondly-remembered scene from the classic movie *The Great Escape*.

Expertise provided by Andrew Jones at Studio Liddell. Visit **[w]** www.studioliddell.com or contact the company at **[e]** enquiries@studioliddell.com

Studio Liddell

Over the past three years, Studio Liddell has developed into a multi-talented outfit, supplying some of today's best commercial images to an extensive international client base.

We can translate initial ideas and concepts into spectacular images, which meet the brief as well as have 'that something extra'. It's this final touch that sets our images apart from our competitors and gives our clients an edge in the marketplace.

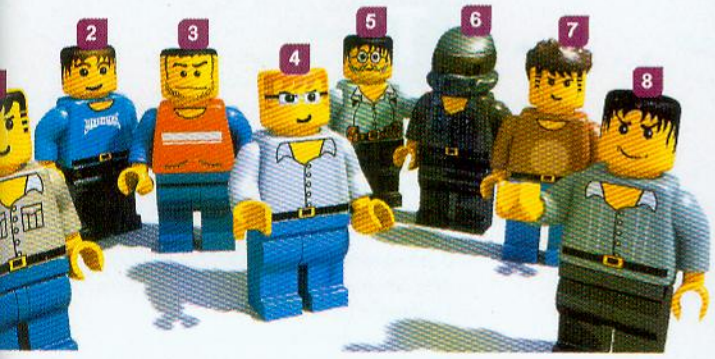
Using a team of talented illustrators, animators and designers, we're able to create images which are diverse in their subject matter yet all produced with the same care and attention to detail. Our range of work includes 3D modelling for advertising and games markets, technical and informational illustration, food illustration for advertising and packaging, animation, and design for print.

The animation has been a natural development from the 3D modelling, and it has opened a whole new area of opportunity – we now have an interesting portfolio of commissioned sequences, which have been used for many varied purposes: educational work for the National Space Centre, Pharma animations used in conference presentations and the National Science Centre, as well as Website sequences for Marshalls.

We continue to strive for perfection with all our imagery even though the constraints of commercial deadlines make this almost impossible. Our aim is to continuously experiment with fresh illustration styles and broaden our existing portfolio. We feel we're merely at the start of fulfilling the potential of our capabilities. 2004 could prove to be a very interesting year.

Studio Liddell's recent work includes:

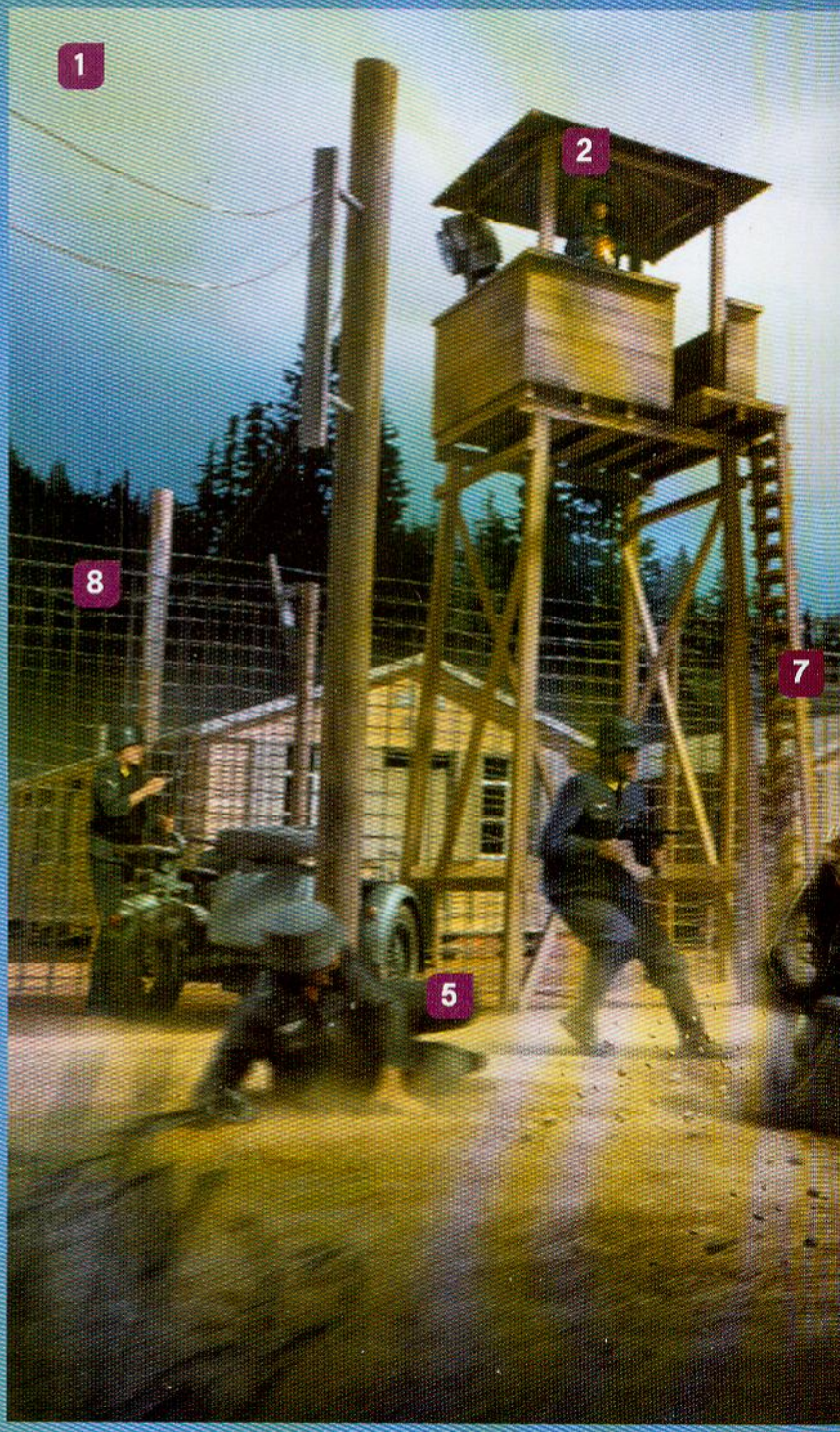
Tussaud's Group, Shell, Mars, Cadbury Schweppes, Sainsbury's, Manchester United plc, *The Sunday Times*, and the National Space Centre.

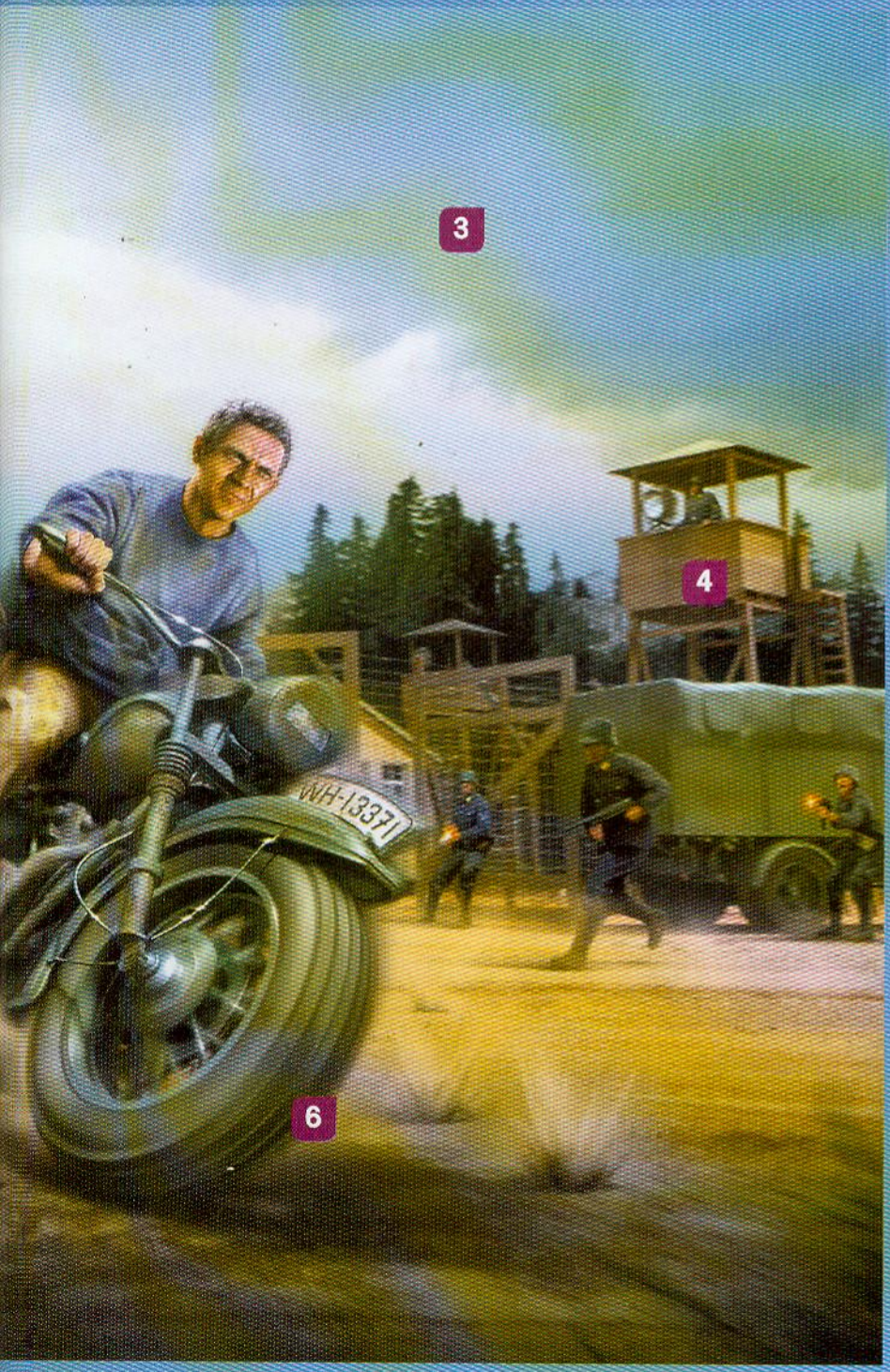


The team at Studio Liddell:
1. Jon Liddell (partner and illustrator)
2. David Ash (illustrator and animator)
3. David Lawless (graphic designer)
4. Andrew Jones (partner, illustrator and animator)
5. John Fox (illustrator and animator)
6. Paul Stevenson (illustrator and animator)
7. Jez Glover (illustrator and animator)
8. Ian Liddell (partner and illustrator)

Many samples of Studio Liddell's work are available on its Website at [w] www.studioliddell.com. You can contact the company at [e] enquiries@studioliddell.com and [t] 0161 834 5150.

Studio Liddell does 3D...





1 Composition

This 3D illustration was one of a series of five promotional images created for the multi-platform game The Great Escape. The composition had to work in both landscape and portrait formats and give the onlooker a taster of the drama and action which would be available in the game.

2 Global Illumination

Most 3D renderers available today have the ability to generate Global Illumination. Here, I used this method of lighting to prevent the shadow areas becoming too heavy. I've also tinted the shadows with a blue/purple colour to give them a more natural appearance.

3 Complementary colours

The sky had to be quite atmospheric to fit in with the action in the main body of the image. I chose to create a cloudy rain-filled sky with a grey/blue mix to complement the sandy tones of the POW huts and foreground. I also intensified the sky colour towards the rear of the image, where the sky meets the trees, to give the impression of rain-filled clouds.

4 Textures

The use of bitmap and procedural textures featured heavily in this image – every surface had some form of texture applied to it. Detailed texturing can quite often turn a low-polygon mesh into one that appears to be a much more detailed object. I also used texture maps in conjunction with bump and specular maps to break up the highlight areas on the 3D surfaces, because the client didn't want a smooth 3D-rendered appearance.

5 Motion blur

In order to give the whole image a sense of speed and dynamism, I applied motion blur to most of the elements in the scene. The majority of this was created in Photoshop using motion and radial zoom blurs – only the blur on the motorbike's wheels was rendered. I purposely left the central portion of the scene free from motion blur in order to make Steve McQueen the focal point of the whole image.

6 Noise layer

Quite often with an image of this complexity and when using many composited elements, some parts can appear slightly 'cut out'. This was particularly apparent within the blurred areas of the front wheel. To overcome this problem, I applied a fine layer of noise over the final flattened artwork. You could also use the grain filter to create a similar result, but it only works in RGB mode.

7 Fog

Due to the camera position that was required, all the elements appeared on the same focal plane. This was making the image look quite flat, so I needed to create some depth. Therefore, I introduced a layer of light blue/purple fog, which gradually builds from the rear of the motorbike to a maximum tinted level of 50 per cent at the rear of the POW buildings. By using this technique, I managed to create some much-needed space between the major elements of the image.

8 Silhouette

Finally, I added a dense layer of dark conifer trees to the rear of the image, intentionally placing them higher than the huts and fences but below the watchtowers. I also thinned them slightly behind Steve McQueen and thereby created an interesting silhouette against the sky. This also served to be dark enough to allow the fence wirework to be clearly seen. I then added a thin layer of smoke/haze behind the huts to soften the transition between the foliage and buildings.

Ten expert tips

1 Preparation

Preparation is the key. Before you start doing any digital work, it's imperative that you have a clear aim and a fixed idea of how the end result should look. More often than not, a visual will be supplied by the client. If it isn't, sketch something out, no matter how crude. It's often worth scanning it and flipping the image in *Photoshop* so you can view it from a different perspective.

2 Line work

Boring preparation! By creating accurate line work, the modelling process will become a whole lot easier. If you're using Adobe *Illustrator*, make sure all your points are joined and that any curved lines blend perfectly with the straight ones. When creating NURBS lines in *Rhino*, for example, try to use as few points as possible — using too many will probably result in uneven surfaces.

3 Modelling

The complexity of a model should be dictated by the final reproduction size. In other words, there's no need to create a 50,000-polygon mesh if it's going to be reproduced at 2cm. A low-polygon faceted object appearing large on a published piece would be just as inappropriate.

4 Visuals

If you've been sent a visual to match, always set up the final camera view with a copy of it in the background of your 3D application. You'll then be left in no doubt that what you're rendering will fit into space made available by your client. It's also a good idea to tint the scanned visual with about 85 per cent black to limit any interference with the viewing of your mesh in the viewport.

5 Lighting

This can quite often be the most time-consuming element of the 3D process, especially where large models are concerned. A simple way of speeding up this process is to replace any high-res models with either low-poly spheres or low-poly proxy objects and always apply a matt light grey material to start with. By using this technique, the scene will render very quickly even when using Global Illumination and area shadows. This enables you to make adjustments to the lighting rig, and the impact that the coloured lights are making will be clearly visible on the grey material.

6 Global Illumination

If you've got the software to enable you to generate Global Illumination in your scene, try using objects with a high self-illumination material to light your objects rather than the package's standard lights. This technique can often produce a much more realistic feel to your image. Also try replicating photography techniques, and bounce light off reflectors into the scene to create softer 'fill-in' lights.

7 Rendering

When the final composition is ready to be rendered, render out as many layered elements as possible. These can then be composited together in *Photoshop*. If your renderer allows, save out the shadow pass, specular reflection and alpha channels. Once you've got a fully layered image, any amendment other than changing the camera angle can be achieved in *Photoshop* rather than you having to re-render.

8 Use appropriate software

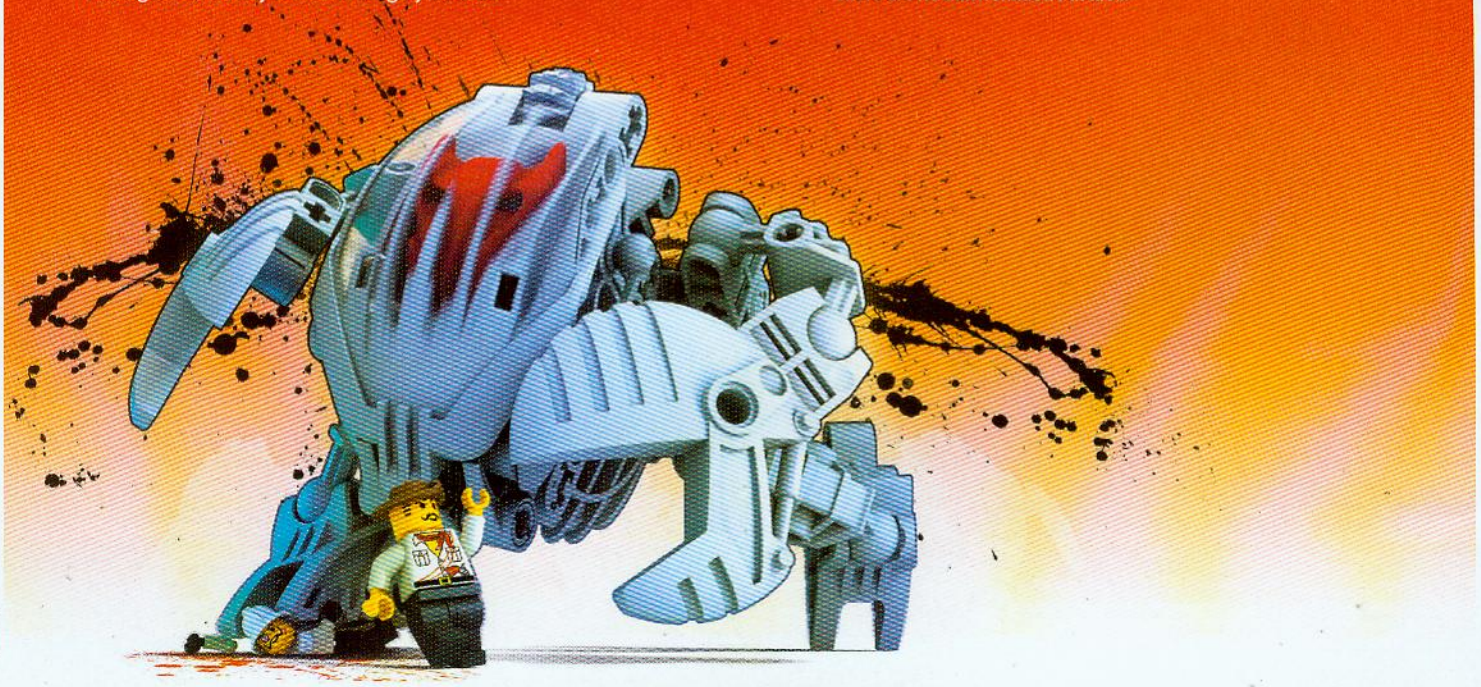
Treat your software as just another tool, and don't get trapped into the belief that everything must be created in 3D or in one particular application. If it's easier or quicker to achieve the desired result using a 2D application, use it. A good example is rather than producing beautiful rounded edges to an object in 3D, why not just leave them sharp and retouch the render in *Photoshop*?

9 Backups

I can't stress this one enough: save many different versions of your project as your project develops. If you have an auto-backup function, switch it on and always keep a backup of the entire project. You never know when you might need it.

10 Avoid black

No matter what you're rendering, avoid using black as your shadow colour (the default in most 3D applications). Instead, try using blue or purple hues and don't make them solid. Allow the detail below to show through — your images will look a lot more natural for it. As my old art teacher used to say: "There are no black shadows in life..."



Part 1: Preparation

Time spent here will pay dividends later on...

Models, textures and plug-in resources

www.turbosquid.com
www.digimation.com
www.3dcafe.com

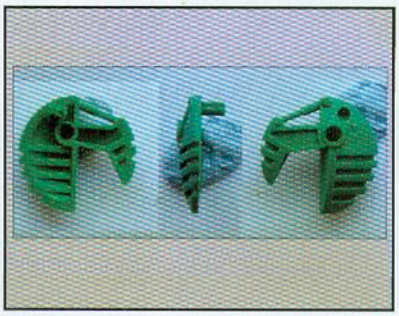
3D illustration resources

www.illustrationrgb.com
www.amberartists.com
www.contact-uk.com

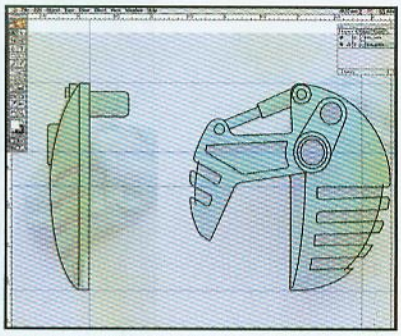
Books

Expose 1, by Ballistic publishing at www.ballisticpublishing.com

1 Compile any references you have, whether they be client visuals, photographs, sketches or colour studies. Quickly flesh out what you have to achieve, because it'll be quicker to make changes at this stage rather than later.



2 Take photographs of every component to be modelled from each orthographic projection. This will give you a clear understanding of the construction of each shape. When taking these pictures, stand well back and use the zoom to minimise camera distortion.



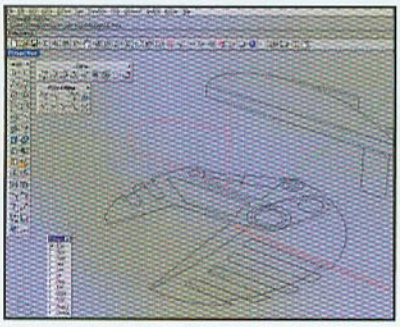
3 Once all the photographs have been correctly sized and a final .PSD document created, you can do some accurate line work. Then these can be imported into your chosen 3D application to form the basis for modelling.

Part 2: Give him a big hand

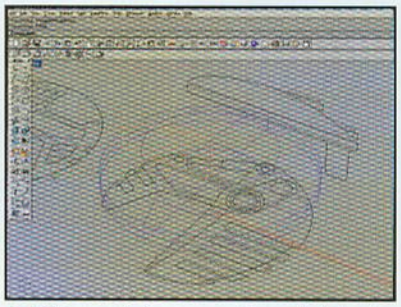
In this part, we'll model one of Bionicle's hands. Every other component can also be modelled in this way...

Boolean operations

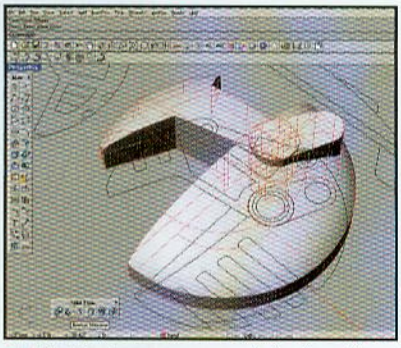
'Boolean' tools appear within many 3D modelling packages, but it's worth noting that accurate results will probably only be achieved by using solid modellers, such as *Rhino* and *form-Z*. The principle behind these operations is to combine (union) or subtract (difference) two or more 3D objects in the creation of a single 3D object.



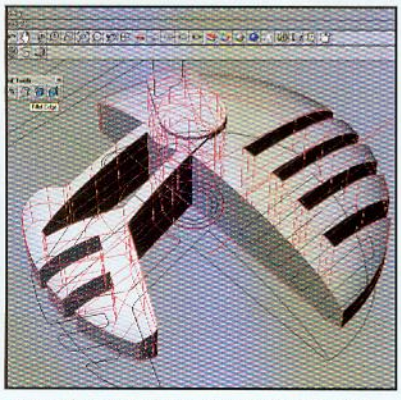
1 Start by placing your line work onto its respective axis. As I was using a NURBS modeller, I recreated the profiles intended to be revolved with NURBS curves while keeping the points to a minimum.



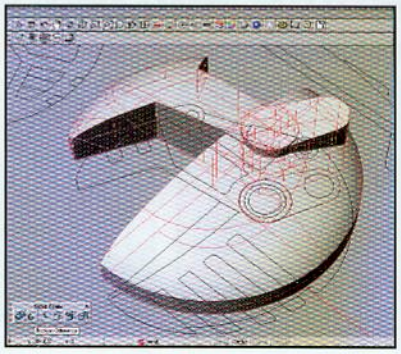
2 The recreated curves were then selected and revolved around a central axis. This shape will form the basis for the hand model. A good habit to adopt is shading or rendering your mesh after every modelling operation to check for any unnoticed irregularities.



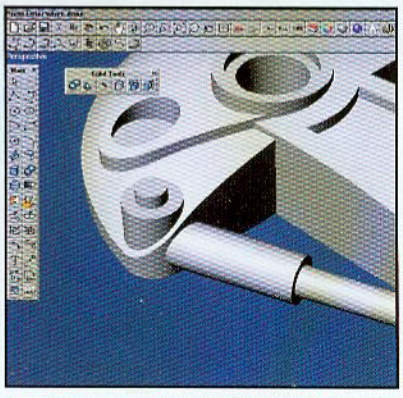
3 Cutting shapes are now created and used to 'Boolean difference' (see margin note) the revolved object into shape. The piece which will form the top of the hand was extruded as a solid shape.



4 Make more refinements to the surface using simple extrusions of shapes and Boolean operations. Now, the basic shape is beginning to appear and we can make a start on rounding some of those sharp edges.



5 First, I created the inner revolved object. This was fitted and, using the 'Boolean union' tool, was joined to the master hand model. I then selected the outer sharp edges individually and filleted them to the desired radius. I find this method a cleaner way of controlling the smoothness of where curved and straight areas merge.

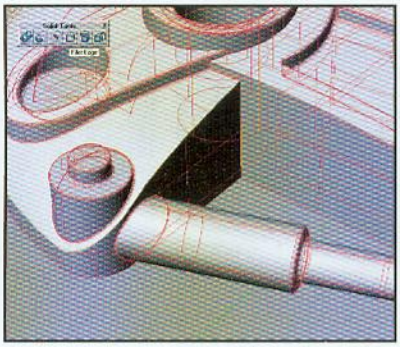


6 A quick revolve, and the piston which connects the two sides of the hand is created. This is then attached to the hand model using the 'Boolean union' command to create a single object. This is a good time to preview and save your work.

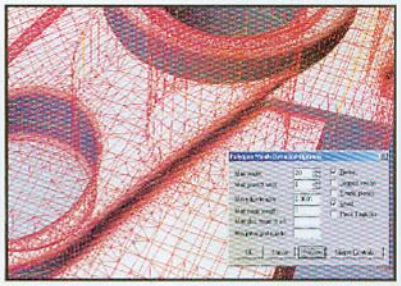
Give him a big hand continued...

3D resources

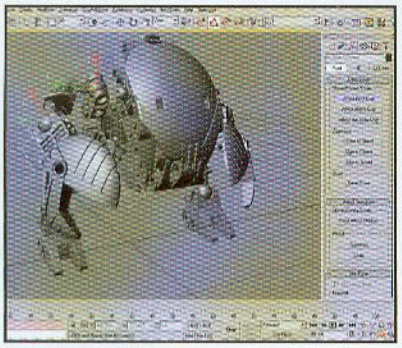
www.discreet.com (makers of *3ds max*)
www.rhino3d.com (makers of *Rhino* NURBS modeller)
www.finalrender.com (*finalRender* rendering engine)
www.splutterfish.com (*Brazil* rendering engine)
www.davidgould.com (Cel shader for *3ds max*)



7 This section clearly demonstrates the benefits of working in NURBS. I select each edge shape of the hand model individually and create a smooth rounded edge using the Fillet tool. As long as your model is well-formed, it works every time.



8 We now need to somehow get this into *3ds max*. I've tried exporting as 'Iges' but got mixed results; the best way I've found is to use the detailed export controls saving in either 3ds or dxf formats. If you're using *3ds max* and *Rhino* on a regular basis, the N-Power plug-ins for *max* could be worth buying because they allow you to import *Rhino* .3dm files directly into *max*.



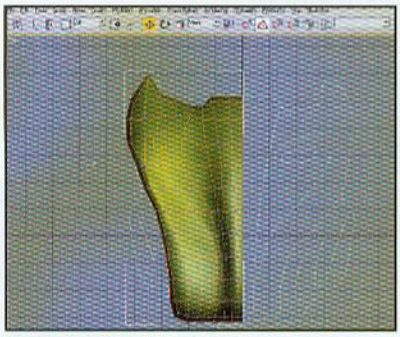
9 The rest of the robot was created using these techniques, and once all the elements were pieced together, I adjusted their pivot points and linked all the objects. This resulted in a fully animatable model ready for posing.

Part 3: Organic modelling

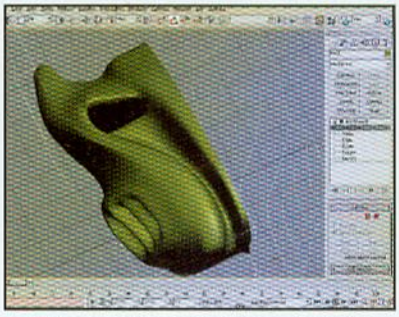
Create the Bionicle's face out of a cube in *3ds max*...

Keep modelling simple

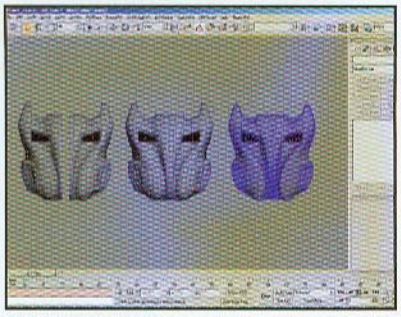
Always try to keep your 3D meshes clean and well formed. Start simple, especially when creating NURBS surfaces, because these can be extremely unforgiving. When using the Meshsmooth Modifier in *3ds max*, keep your base mesh simple and well designed. If things aren't going to plan, it's best to start again rather than persevere.



1 I initially created a cube with enough divisions to create a rough shape of half the face, and then I converted the cube into an editable poly. Next, I manipulated the vertices to create a loose face shape.



2 After some time spent refining and adjusting the poly mesh, I had completed a low-polygon version of half the Bionicle's face, removing the polygon that caps the joining side of the face. I then applied a Meshsmooth Modifier to increase the mesh density and check for irregularities.



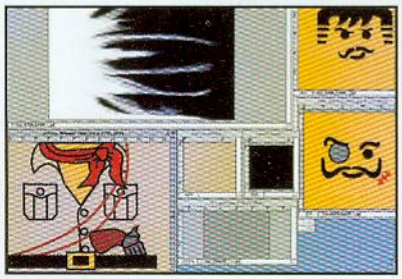
3 Remove the Meshsmooth Modifier and create a mirrored duplicate of the left-hand side of the face. These two objects are then snapped together and their overlapping vertices welded together. Finally, apply a new Meshsmooth Modifier to this object.

Part 4: Texture, lighting and rendering

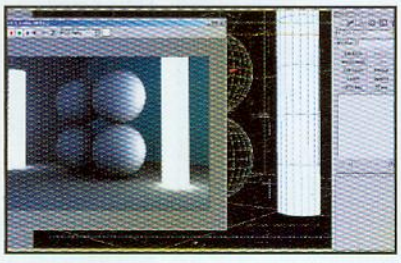
It's time to shed some light on the situation...

Graphics tablets

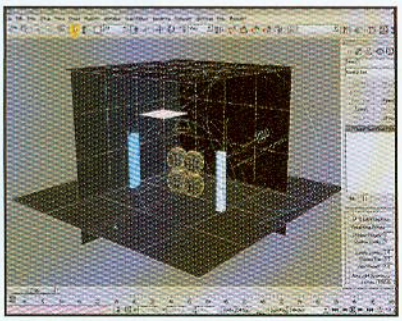
If you're planning on doing any retouching using *Photoshop* or *Painter*, invest in a pressure-sensitive Wacom tablet. Size doesn't matter (contrary to popular belief): either an A5 or A4 tablet is ideal. Using a graphics tablet is a much more natural way of working and it removes some of the barriers between creativity and technology.



1 The only map the Bionicle model required was an opacity map, for the face guard. For the Lego characters, I created the textures using both Adobe *Illustrator* and *Photoshop*. It's also worth noting that I mapped solid colours onto the other elements of the character's body to keep colour consistency.



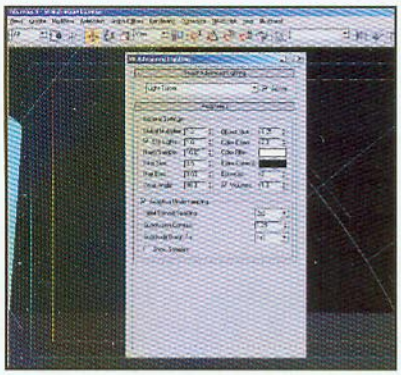
2 To begin with, I created a simple lighting scene to test out some lighting ideas. Rather than using the standard lights to light the scene, I was experimenting with using materials with a high self-illumination. I chose to create a scene with four spheres because these gave a good impression of how the shading would appear around a 360-degree surface.



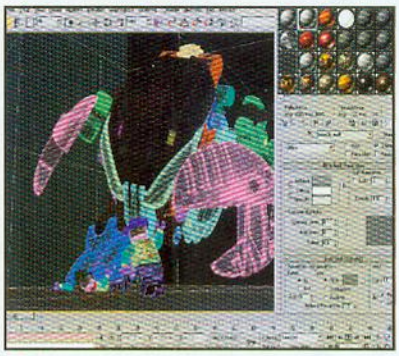
3 In the end, I had to succumb and introduce a low-intensity shadow-casting area light because the image was lacking depth. This added some much-needed density and direction to the shadow areas.

Grabbing attention

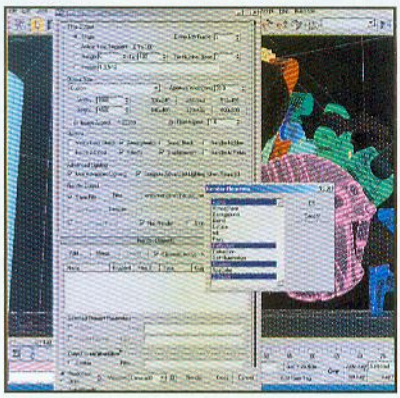
Any composition should have a focal point, so create a design which draws the viewer's eye to the most important part of the image. Highlight this area by either placing a slightly darker vignette around the subject matter or by simply increasing the brightness and contrast of the focal area by 10–15 per cent.



4 Once you're happy with your 'lighting rig', it's time to merge the master model into the scene and set up your final camera view. Using the Blinn shader, I applied a matt material to my model and, by doing so, kept the surface tones quite subtle without any flared highlights.



5 Now's the time to prepare the settings in the Global Illumination dialog in preparation for the final render output. It's best to keep any adjustments to small increments to fine-tune your 'GI' solution, because these settings are very sensitive and can have major implications for the render time.



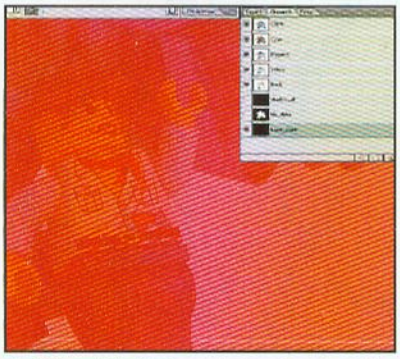
6 Once everything's in place, it's time to get the final rendered image produced. If your renderer allows, it's also worth outputting the alpha, shadow, specular and z-depth channels for use in *Photoshop* later.

Part 5: Retouching and compositing

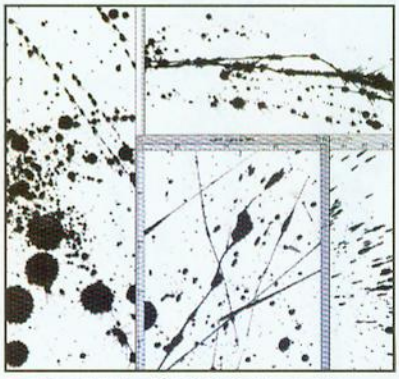
It's time to add the splash effects, silhouettes and keylines...

Choosing colours

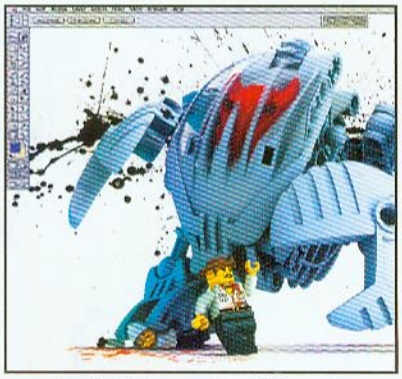
If you're struggling with a colour scheme for your image, try using specific complementary colours rather than guesswork. Get hold of a good 'colour wheel' and by always choosing opposite colours on this wheel, your images will be sympathetic in colour and pleasing to look at.



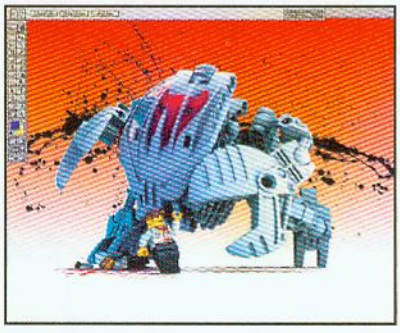
1 Once all the final outputs have been created, I chose to composite them all into one .PSD file, fixed any rouge edges and surfaces and strengthened the shadow area under the figures and robot using the pre-rendered shadow pass as a mask.



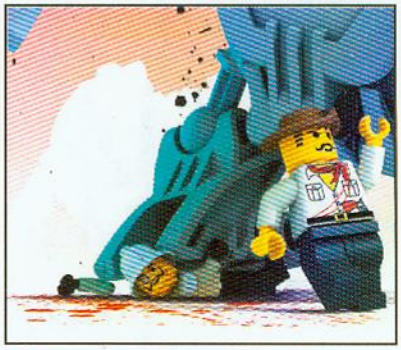
2 I created the effect in the background by splashing acrylic paint onto heavyweight paper. This resulted in a dozen A4 images which I then scanned at 1,000dpi to make sure that all the areas could be used in the final composition.



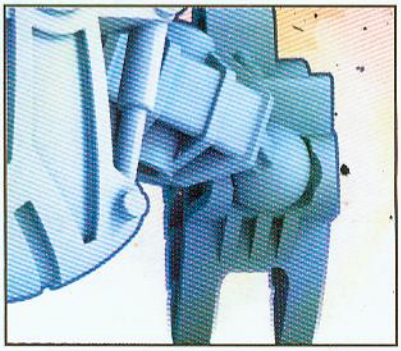
3 Once the final composition of the splashes had been created, I distorted a small section of the background on a new layer to fit under the dismembered 'Sam Sinister'. Once in place, I then changed its layer mode to Multiply.



4 I wanted to create an intense red background. To achieve this result, I used two gradients – one red, one orange – on separate layers set in Multiply layer mode. I then added a fine layer of 'noise' over both layers to alleviate any banding that would occur in CMYK.



5 I wanted to give the viewer the subtle impression that there were more Bionicles in the background, so I rendered four other positions of the robot and used its alpha channel to create a white silhouette, which I then tinted at 35 per cent.



6 Finally, I added a keyline outline to gel the rendered image to the background. I first made a selection of the Bionicle layer, modified the size of the selection and filled it with a gradation which faded from black to blue to transparent. GDP

SECTION **FOUR**

Using type as a pattern

Using originally drawn letter forms and the Graphic Hose tool in *FreeHand*, Identikal shows you how to create detailed and colourful typographic illustrations using vector-based programs...

Throughout this tutorial, Identikal demonstrates how to build and create letter forms which can be used for illustrations. Using techniques in either *FreeHand* or *Illustrator*, you'll learn how to become an expert with the Graphic Hose tool. Once you've mastered this technique, you'll be able to create patterned images with your own unique lettering. This tutorial will help you to create illustrations full of patterns, using icons and traced images as well as letter forms, all of which will give structure to your desired style. You'll also develop a good understanding of colour and hierarchy, making you something of an expert in typographic illustration.

Expertise provided by Identikal. You can contact this type foundry at **[e]** info@identikal.com

Identikal

The Identikal Corporation was founded back in 1998 by identical twins Adam and Nick Hayes, so it's currently celebrating its fifth year of business in the design industry. Since its foundation it's become recognised for combining an eclectic mixture of sound and vision, capable of producing unique work for any creative problem, from graphic design to moving image, multimedia to sound, and type design.

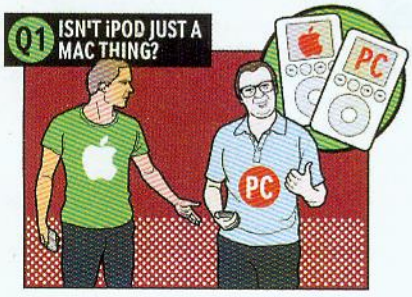
Identikal's striking and innovative style has secured them work with clients from all over the world. These include: Getty Images in America, Guinness in Ireland, Sony Computer Entertainment in London and the Drop Club in Hong Kong. These clients have kept the company's creative juices flowing to create an impressive portfolio of work. Identikal's reputation has attracted some of the world's most desirable clients, such as Sony, Universal Music, Virgin, Ministry Of Sound, BBC and many more.

Identikal is also the team behind the cult success of the Identikal Foundry. It has created some of the hottest modern fonts around, including worldwide collections of around 250 families. Publications that have used their fonts include: *Time Out, Dazed And Confused, Create, Mixmag, DJ Magazine, Wired* and many others. The fonts are also popular with various music acts, including: Truesteppers, Shea Seger, Beverley Knight, Incognito, Elisabeth Troy, MC Luck and DJ Neat. Advertising campaigns such as PS2 The Third Place, the launch of the Nintendo Gameboy Advance and Virgin Money have also used fonts from the Identikal Foundry collections.

Such clients have helped establish Identikal's name in the world of typography, and this drives their innovative approach to their work.

Mallon+Taub Opticians Shop

Identikal has just completed the corporate identity and the exterior design of a new opticians based in central London. This shop offers exclusive frames and a sophisticated experience to all who visit.



Apple iPod Advertorial

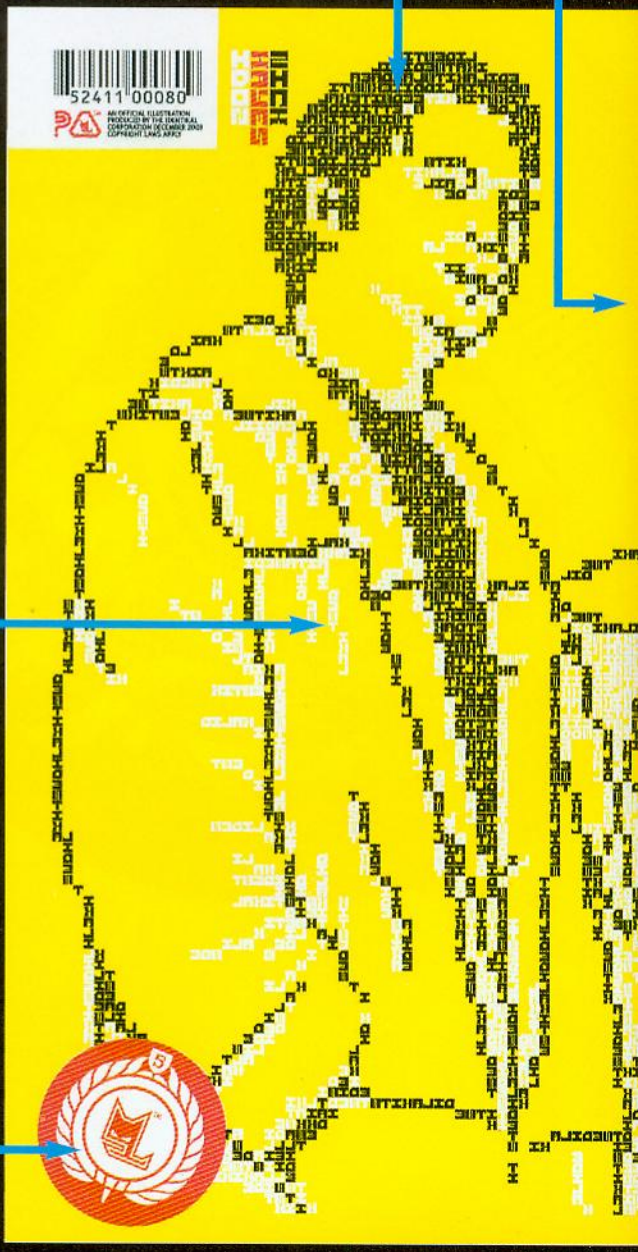
This advertorial was used for the music press, and features ten FAQs on the iPod. The style is based on aeroplane survival sheets.

If you'd like to see more of Identikal's work, you can visit their Website at [w] www.identikal.com. Alternatively, you can email them at [e] info@identikal.com or phone [t]020 7263 2129.

Identikal type...

If you're using an existing font, you may need to modify each character to work within the pattern you're creating. Odd shapes and sizes will destroy the flow of your piece, so make sure you choose wisely. Ensure that you've purchased the font and that it's not a pirated copy. Fonts are treated as software, so any illegal copying of fonts can result in legal action.

Make sure you accurately work out each individual character of your word so that the space between each letter is consistent throughout your piece. Do this by working within a square, so that your glyphs can fit perfectly within it.



Here we've added an extra twist to this illustration by using our Graphic Hose to trace over a photograph. This technique works well if you keep to your Colour palette and hierarchy, and it adds depth and detail. Make sure your photograph has the right tones and contours to accurately map out shadows and light.

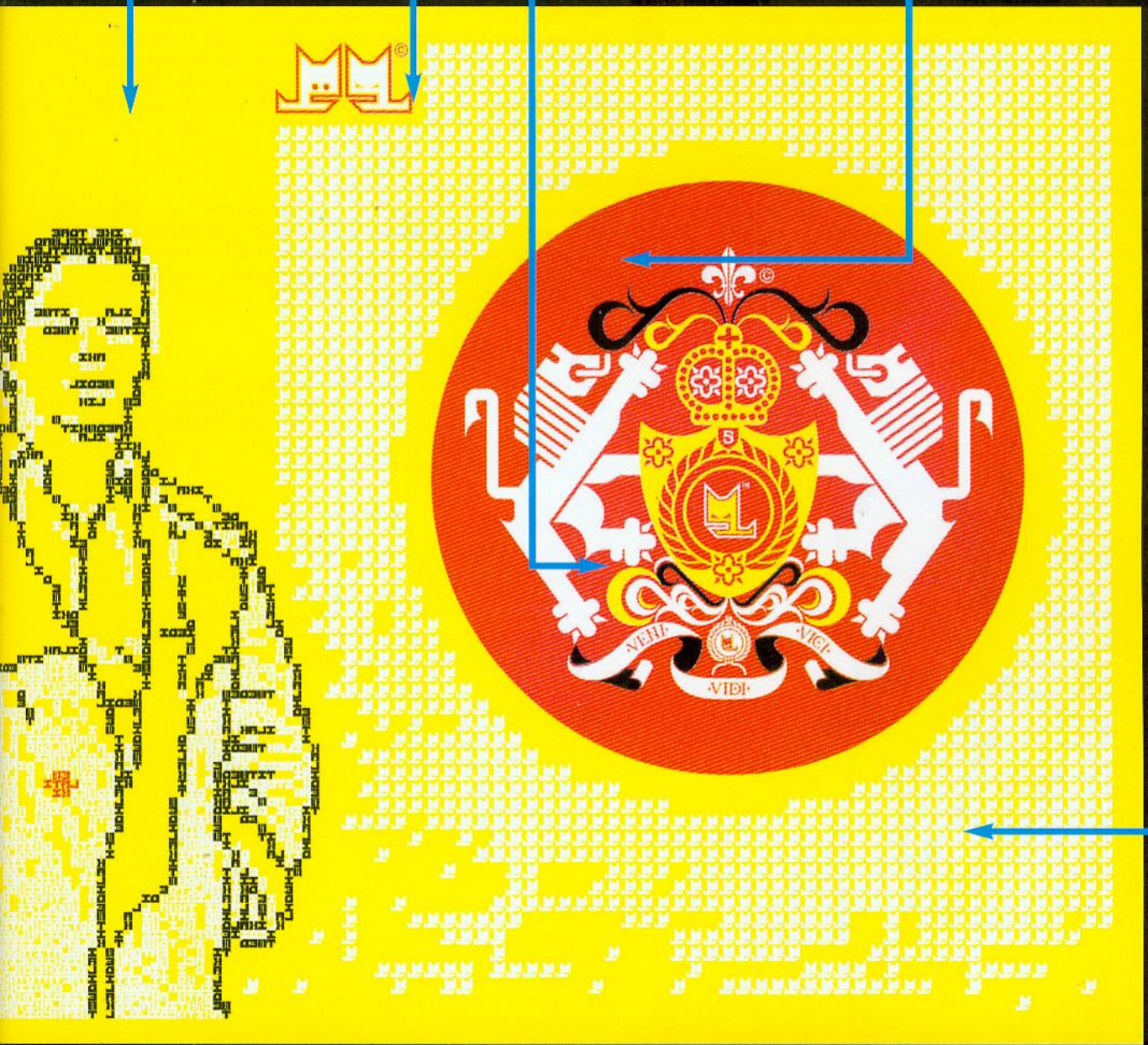
Add extra details to your illustration to fine-tune it. Here, we've added one of our heraldry icons. These little extras can be logos/icons or even bits of text and they're great for adding balance to your work.

Don't feel that you need to cover your whole illustration with your Graphic-Hosed type. In fact, areas that show space and colour can be used to bring out your hierarchy. Large amounts of space can also be used to allow the viewer a bit of breathing space when looking at your illustration.

Don't be afraid to use your glyphs at a larger size than you have with the glyphs in the Graphic Hose. Because this is a typographic illustration, the viewer will be looking for a hidden message of some sort. Make your illustration more interesting by allowing your viewer to interact with it.

Choose your colours wisely. Try to restrict yourself to a small palette of colours which complement each other. Look for a dark colour which can bring out negative shapes, then a light colour to counter-balance them, and finally a mid-range colour to bring out any details to help the flow of your illustration.

Choose your background shape wisely – we've chosen one of our existing logos. This can be traced easily by our Graphic Hose, and it works well when viewed from a distance. Shapes that are simpler and less detailed tend to work better when using this technique.



Think of how your illustration works from afar: does your Graphic Hose pick out the details of the shapes and photos you've traced? Then look at your illustration close-up: does the type read and flow how you envisaged? It's important that both of these questions are answered positively, in order for your illustration to work.

Ten expert tips

1 Using layers

When constructing illustrations as detailed in colour and patterns as this, you need to use layers wisely. The best way to do this is to make sure you name each individual layer correctly, and ensure it's locked when not in use. Limit your layers to either a colour block, or even an area of tone which is built up from your Graphic Hose shapes.

2 Graphic Hose techniques

The Graphic Hose has an unlimited amount of cells available in which to place shapes, so try to be adventurous in what you add to it. Make sure all of your shapes are similar in size and negative/positive shapes. This will help give an even flow to your patterns once you trace over your selected images.

3 Organisation

Always be well-organised. There's nothing worse than having an illustration that's disorganised. Make sure your layers are in the correct positions, and that you're locking each layer which isn't in use. Name your files and Graphic Hose cells correctly, so you can remember each one individually when you need to.

4 FreeHand or Illustrator?

For your vector illustrations, use whichever program you feel most at home with. *FreeHand* has simpler editing tools than *Illustrator*, but the latter has a more complex engine which offers a variety of special effects. At Identikal, we tend to use the best of both programs, allowing our work, rather than the software, to do the talking.

5 Be legal

When using fonts, be sure that you've purchased them from their original source. All fonts come with a user licence, which all users should abide by. Since fonts are recognised as software, you'll be liable to prosecution for using them without a recognised licence. Pirating fonts is as bad as pirating copies of *Photoshop* or any other programs. To be safe, be legal.

6 Use a grid

Always work to a solid grid when putting together your illustrations. Make sure you work out accurate reference grids for bleeds as well as work areas. When you're placing graphic objects within your work area, be sure to work to your grid, and your hierarchy. Once you've become accustomed to using a grid, you'll realise how much easier and less time-consuming it is.

7 Typographic structure

Within this illustration, we've used a block-style typeface we designed. You'll notice that all of the characters are exactly the same size, so that when we use the Graphic Hose, the gap at the sides and the top of each letter form is the same. This gives a typographic flow to the structure of your illustrations and helps to distinguish tones within your work.

8 Sans and serif

A 'serif' is the slab or tail on the end of a letter form which came from the chipping of a letter from stone in ancient times. Fonts which have this detail, such as Garamond, are said to be more legible, at least in print, but can look more 'fussy'. 'Sans' is the Latin word for 'without', and sans serif fonts, such as Helvetica, can look cleaner and more modern, especially at large sizes, and can actually be more legible on screen. Both can make interesting patterns!

9 Bitmap-style fonts

Fonts that are based on LCD screen technology, such as calculators and airport departure screens, are great for pattern usage, because they're imitations of bitmap or cell typefaces. This means they're built up of shapes that benefit being used at smaller sizes. They don't break up like other fonts when reduced or enlarged in pixel programs such as *Photoshop* because they're built up within similar spaces.

10 Using icons

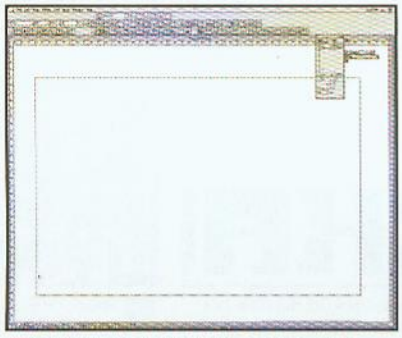
When looking for a graphic shape or logo to use in your Graphic Hose, try something that can fit into a square shape. The less detail your icon has, the better it is to use for your pattern at smaller sizes. Try to use only one colour too, because an icon using too many colours can make your traced images look confusing to the eye.

Part 1: Designing your letter forms

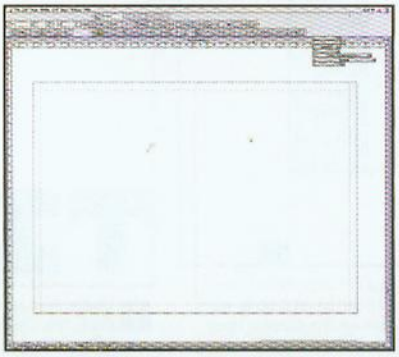
In this part of the tutorial, we show you how to create letter forms, which you'll eventually use as your Graphic Hose as well as within your illustration...

Do your research

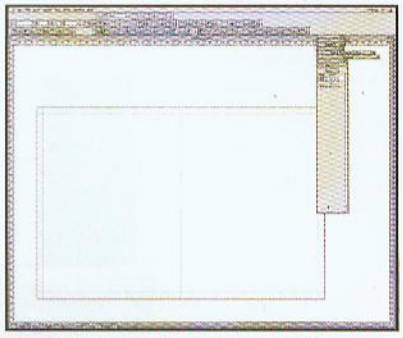
To keep ahead of the game in typography, make sure you know what the latest developments are. The best way to do this is by registering yourself with the best type distributors, who will keep you informed of all the latest typefaces. They'll send you newsletters and catalogues of their products. Check out these sites:
www.t26.com,
www.fonts.com,
www.myfonts.com,
www.atomictype.com,
www.type.co.uk.
(You can also purchase fonts from Identikal's font library from all of the above Websites.)



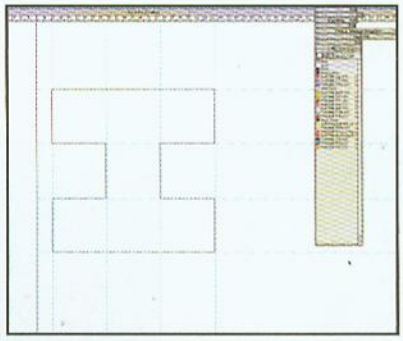
1 Open up a new file in the vector program of your choice. Change the active area (if needed) to your desired size by selecting the custom dimensions in the Properties>Document window. Remember to save your file with an appropriate name.



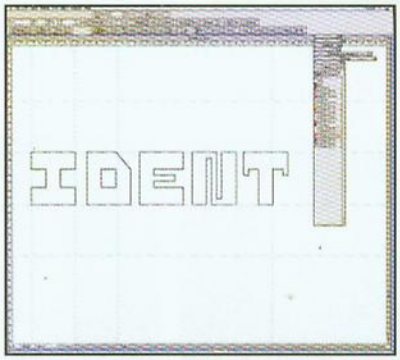
2 Set up your work area with grids to work in – we use a 10mm margin line to lay out our illustrations. This helps to keep graphic objects away from the trim line, unless you require some of them to bleed off.



3 Make your first layer, which should be underneath both the guides and the foreground. Name your new layer appropriately. Here, we've named it to relate to the work we've placed on the layer – in other words, after the letter forms we're producing.



4 Start drawing the shape of your first letter. Use a grid for this. Because these letter forms will be used alongside each other, we're keeping both the x and y height exactly the same, and the shape within a square.

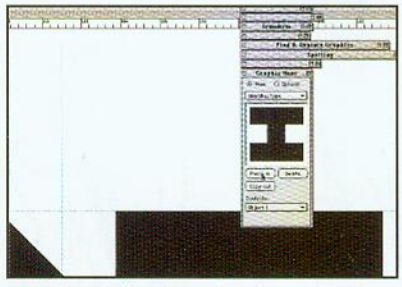


5 Work out from this shape the flow of your other shapes. Because we're using a square-shaped grid, make sure you keep each shape within this particular size.

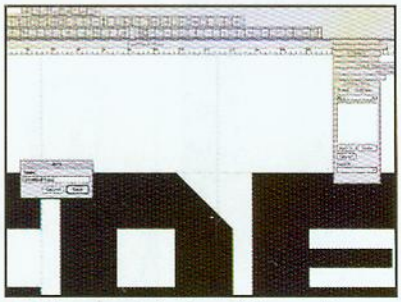
6 Ensure that your letter forms are accurate and that they all fit to the same grid. Then you can place them together to see if they flow as you want them to.

Part 2: Building a Graphic Hose

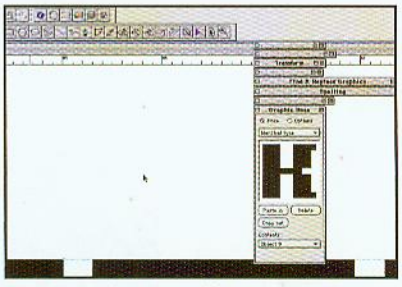
Now that you've created your letter forms, we show you how to build a Graphic Hose using your glyphs...



1 Select the first of your letter forms – this will be the first letter to appear inside the Graphic Hose. You'll need to select the Graphic Hose window and then name a new Hose by selecting the pull-down menu, below the Hose and Options selections.



2 Your chosen letter form will then need to be copied into the Graphic Hose tool window (press Cmnd+C, then click Paste inside the Graphic Hose window). Make sure you've pasted in the shape correctly.

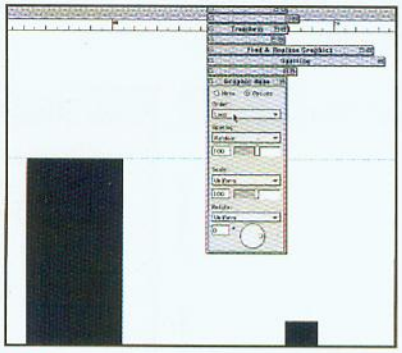


3 You can have many different logos or shapes in each Hose you create, so you have an unlimited amount to use. This means you can copy and paste all of the other letter forms, one by one, into your Graphic Hose. Simply do this by repeating the previous step.

Building a Graphic Hose continued...

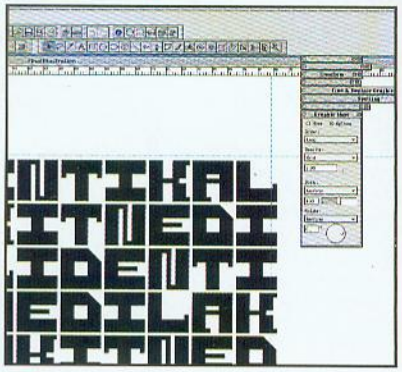
Colour co-ordination

Always restrict yourself to a Colour palette which has a limited number of colours. Choose your colours wisely, and try to use tones of colour to lighten or even darken objects. We tend to restrict ourselves to two or three main colours, then choose three or four colours for our secondary palette to pick out details.



4 Once you've copied all of your letter forms into the Hose, you'll need to set it up to work. Click on the Options button on the Graphic Hose window. You'll see a whole host of settings to choose from. If you plan to create images with this Hose, you'll need to select the Loop category.

5 Under the Spacing options, set the Hose to a Grid. This allows your letter forms to be Hosed onto an invisible grid layout, which can be set to whatever size you desire. For this piece, we need a grid which is tight rather than spacious.



6 Once you've set your Hose, test it on your workspace. If it isn't as tight as you expected, don't worry. Go back to the options in the Hose window and change the increments until it's right for your needs.

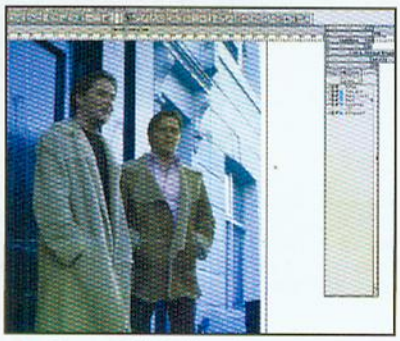
Part 3: Tracing an image

Once you've created your Graphic Hose, we show you how to accurately trace images which will eventually be used in your final piece...

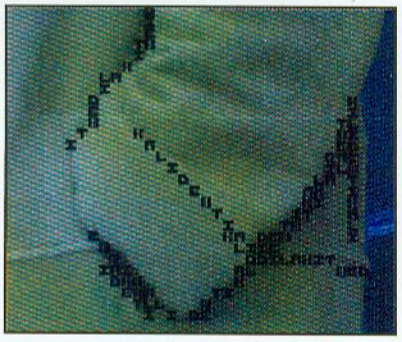
Composition

Use a hierarchy when positioning objects onto your image. Control your viewer's eye by ordering objects. This way your image will stand out and appear organised rather than confusing and chaotic. For more in-depth information about composition, turn to page 52.

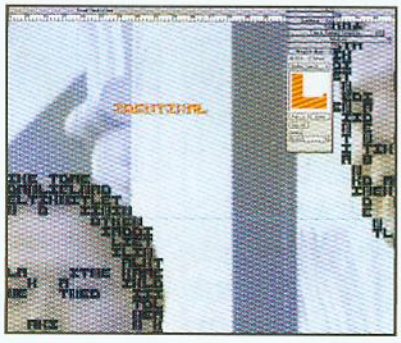
1 You need to select some kind of image which can be used as a guide for your Hose. Be careful with your selection. We've chosen an image of ourselves, which has the right tonal values to trace over.



2 Set up an individual layer for your image as well as your Hose, making sure the image layer is behind the layer of your Hose. This image will now be used as a guide for our Hose and will be deleted once we've finished tracing around it with our Graphic Hose tool.

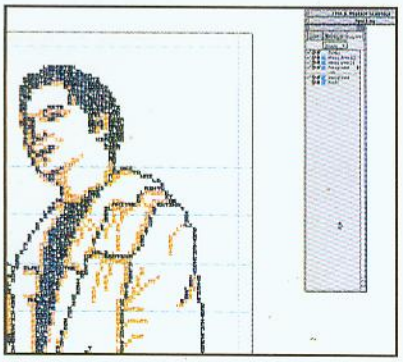


3 Now you can select the Graphic Hose tool and begin to accurately trace around the dark shapes of your image. You'll notice that you can feel the grid as you spray your icon onto the pasteboard, and you can opt to make the grid of your Hose tighter as before.

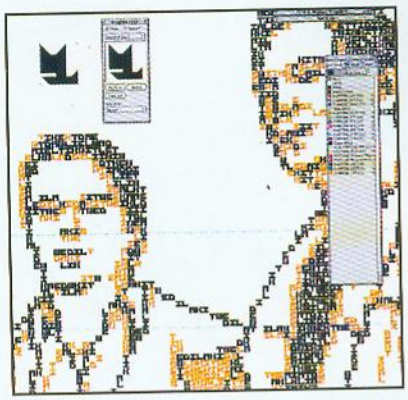


4 Now that you've Hosed the dark areas of your image, you'll need to do the same for the lighter areas to add more depth. Do this by re-pasting your letter forms into a new Hose (follow Part 2) but use a lighter colour of course.

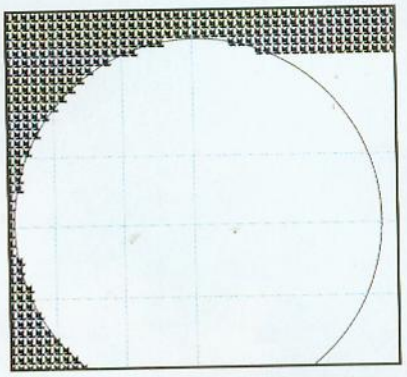
5 Once you've created this new Hose, add another layer, making sure that all the other layers are locked. This layer will be for the light tones of the illustration. Now trace these tones as you've done for the darker tones previously.



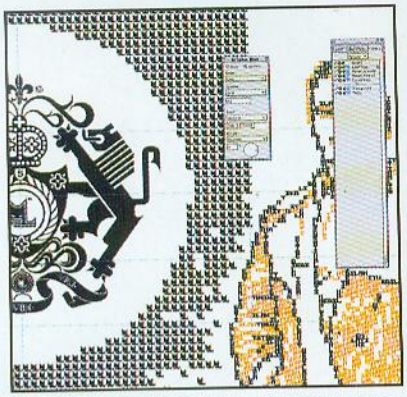
6 Now that you've traced your image, and you're happy that it has turned out how you expected, you'll need to lock both of these layers and then delete the image you've traced.



7 To add an extra twist to the illustration, we've now added a Hose of one of our Identikal icons. This is going to be used as a textural pattern to bring out one part of the illustration.



8 Again, as you've done in previous steps, trace around (or over) an object or image with your new Hose, making sure you've created a new layer for it. Here we've used a circle as a guide, because we'll focus on an element inside this area.



9 Once you've traced your shape with your icon Hose, bring in some kind of focal point which will be used inside your shape. Here, we've used our heraldry logo.

Part 4: Layout and finishing

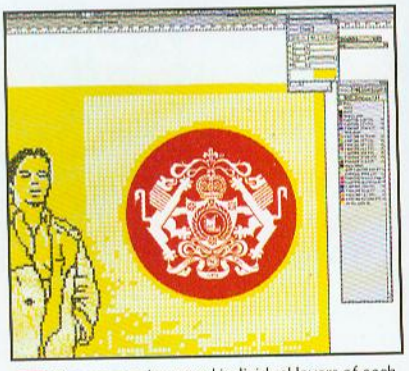
Now that you've created your patterns and images using your letter forms and shapes, you'll need to fine-tune your image. This last section shows you how to do it correctly…

Technique

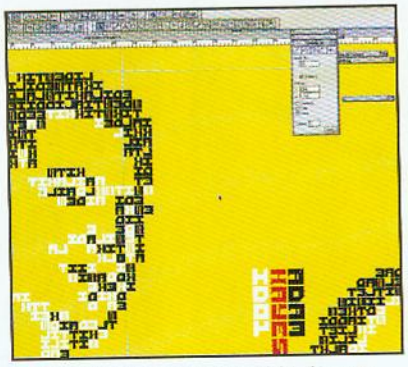
Sometimes you'll find it hard to take on a certain way of developing a stylised illustration. The best way to combat this is to develop your own unique way of producing images. Be inspired, but don't copy.

1 Because this image needs an area for text to flow into, you may need to adjust or, in this case, flip your image. We've used the Mirror tool to flip the whole image from right to left, due to an area reserved for text.

2 Each area is a little bland, so now's the time to get your colour co-ordination right. Using three core colours, we've added a background colour and have drawn emphasis to the coat of arms logo.



3 Because you've saved individual layers of each tone you've traced, you can now change the colours of each tone easily to suit what you think will work for your image. Try different colour variations until you get the effect you're after.



4 For extra depth, add text and detail to your piece. You could also use little icons to highlight a section – we've added text and icons to highlight our names.

5 To bring out extra depth to your icons and logos, add colour to highlight little details. Here, we've coloured areas of the coat of arms to do just this.

6 Once you're happy with the shape of your image, you'll have completed a detailed typographic illustration. Your images should show depth as well as simplicity, and should demonstrate your ability to use type as a pattern. CAPP

SECTION **FIVE**

Building a pixel art world

Engine explains the intricate process of creating isometric objects in *Photoshop* for use in print...

Pixel art is synonymous with the videogame generation. It's a graphic style that's neat and colourful, and extremely time-consuming to create, requiring a huge amount of dedication by keen-eyed illustrators.

Engine produces pixel art, vector and 3D illustration, and the following tutorial is aimed at those who want to settle down to some serious square-pushing. Pixel illustration conforms to a strict set of laws and rules. It's an intricate business and designers often say that where you don't place a pixel is even more important than where you do place one. With this perfectionism in mind, Engine guides you through the intricate steps needed to create an isometric sign. You'll then be shown how to place pixels over scanned images and add colour and shadows to your object.

The final part of this section explains how to prepare your illustration for print.

Illustration: Engine [w] www.engine-design.co.uk

Expertise provided by Engine. You can visit their Website at **[w]** www.engine-design.co.uk or email them at **[e]** info@engine-design.co.uk

Engine

Established in 1997, Engine is a vibrant and dedicated cross-media agency, producing high-impact graphic design for a broad range of clients including: Universal Music, EMAP Active, Haymarket Exhibitions, PACE, Warner, Mercedes-Ilmor, Future Publishing and BF Goodrich Tires.

The studio operates from a converted chapel in Northampton which has all the trappings of a contemporary agency: Xbox, table football, leather sofas, fitted kitchen and fortnightly de-stress massages to boot! Within this cosy and relaxed atmosphere, TeamEngine consists of four designers and one programmer, with enough skills between them to produce everything from complex e-commerce Websites with easy-to-use administration backends to DVD promos combining video and motion graphics for some of the UK's largest consumer events.

Engine's expertise doesn't rest with pixel illustration though – they also do vector and 3D. Recent projects include pixel illustration work for *Internet Magazine*, 3D illustrations for *MacUser* magazine covers (figure 1 below) and vector car-body graphics for *MaxPowerLive* (see figure 2). Other projects include the continuation of the massively popular Clubland compilation series for Universal Music, which now involves mobile graphics, X-rated stickers and T-shirts as well as the design and packaging of the CD itself.

The company has also produced everything for the consumer advertising campaign of the Autosport International show (the world's biggest motor-sport show) held annually at the Birmingham NEC. Furthermore, Engine is launching the new Website for Formula One engine-builders Mercedes-Ilmor.

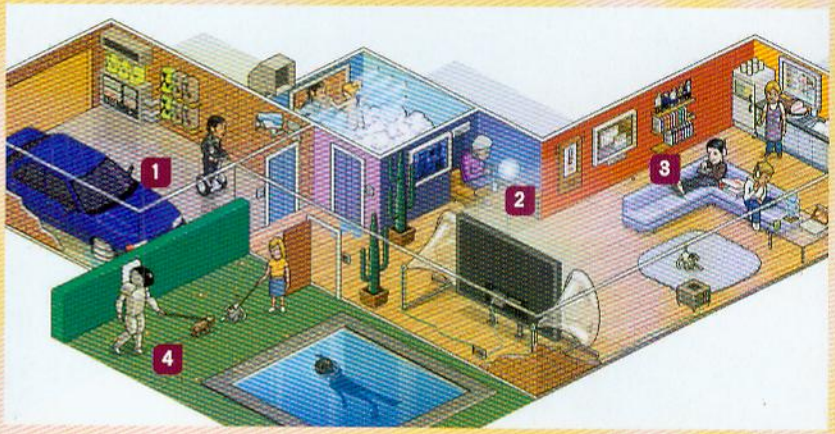
With the relaunch of their own Website planned for 2004, Engine are set to continue producing design work of uncompromising high quality, the fundamental aim of its founders, Matthew Key and Philip Christer.

For more information about Engine, visit [w] www.engine-design.co.uk or email [e] info@engine-design.co.uk

Pixel art in detail...

Style

Pixel styles can vary. On these pages you'll see a large-scale illustration (below) using a multi-colour palette and non-traditional methods, such as smooth gradients and reflections, to give a more realistic approach. The small-scale illustration for Loaded magazine (pictured right) sticks rigidly to a limited palette of colours and a strict isometric grid, echoing classic 90s videogames such as SimCity and Theme Park.



Future Home for Internet Magazine

1 Reflections

Copy elements from the main illustration into floors, windows, water and mirrors to give the illusion of reflections. Set the reflections to an opacity of around 20-50 per cent.

2 Glow

For radiating light sources other than your main light source (for example, from TVs and lamps), blur a layer of highlight colour above the object and set the opacity to 20-35 per cent.

3 Put yourself in

For a joke, a lot of pixel illustrators put themselves and their team members into their illustrations (if they can get away with it). Depending on the scale and detail of your illustration, this shouldn't be too hard...

4 Shadows

To give a better sense of depth and to 'ground' objects, create shadows. Do this by adding a layer of black or dark blue pixels behind your object at varying degrees of opacity, usually 30-70 per cent.

Death At Disney for Loaded magazine

1 Textures

Simple repeated pixel textures and patterns can really help add detail to large flat areas such as walls, grassland and tarmac.

2 Duplication

Stuck for time? Large unused space to fill? Then duplication and repetition of objects such as rocks, foliage and buildings can help.

3 Grids

Using an isometric grid helps you control positioning, consistency, depth and scale. Use one as the bottom layer of your illustration.

4 Base human

For small-scale illustrations, build a basic human and then modify and colourise clones until you have a small army of characters to populate your scene.

Six expert tips

1 3D guides

If you have 3D skills, use them. Rather than tracing a pencil sketch, build the basic geometrics of an object in a 3D application. Alternatively, you could use free models from the Web or from magazine cover discs. Render the object and use it as your guide layer for tracing over in pixels, ensuring the render viewpoint is set up isometrically.

2 Image resource

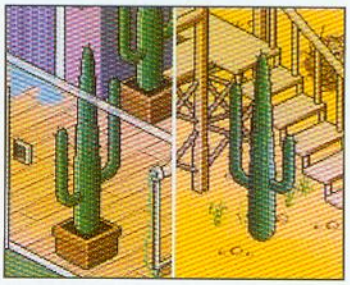
Nowadays, the best place for immediate research is the Image Search option on [w] www.google.com. Flicking through the thumbnailed result pages will certainly spark off some ideas for your illustration.

3 Extra detail

For an extra level of detail on plain shaded objects, add pixel textures and patterns. You should build up a library of these to use in future illustrations.

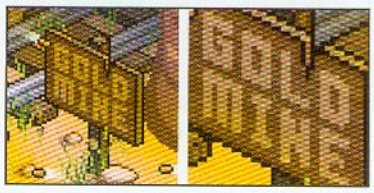
4 Economy

When zoomed out, just a few pixels can look like a familiar object or detail, such as a facial expression. Be economical with your pixels – sometimes fewer pixels will do just fine.



5 Recycling

Pixel work is really time-consuming, so try to duplicate and reuse objects as much as possible, by flipping, modifying and re-colouring. Keep a 'library' in a layered *Photoshop* .psd, because pre-created objects can be used in future illustrations.

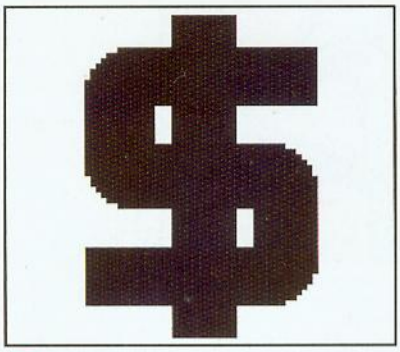


6 Short on time?

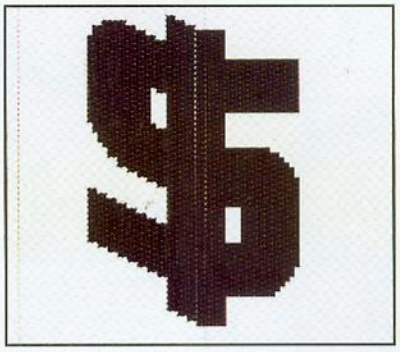
If you're up against a deadline, use a low resolution of between 30 and 72dpi. There'll be a lot less pixels to push around, but your illustrations will obviously look more blocky.

Part 1: Creating isometric type

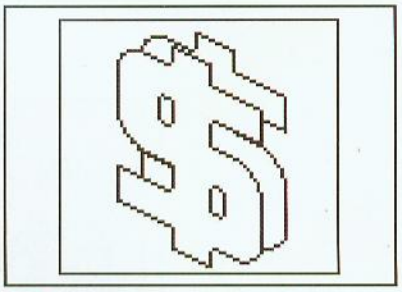
Convert flat type into an isometric sign to go on the front of a building...



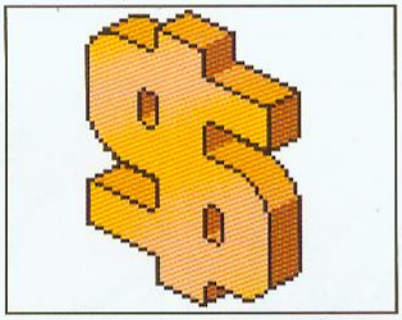
1 To make isometric type, first type out your text on a new layer. Here, we're using a dollar sign to go on top of the bank. Make sure you don't have text anti-aliasing turned on and then rasterise the layer.



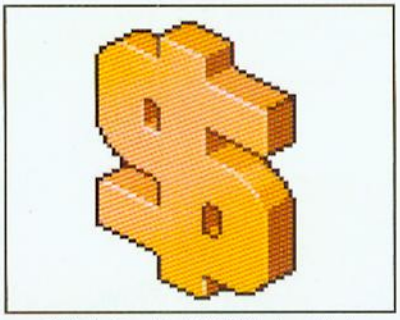
2 Using the Rectangular Marquee tool [M], you need to work along the object from left to right, selecting a column of two pixels each time and moving the selection one pixel upwards. Your object will soon start to take on an isometric angle.



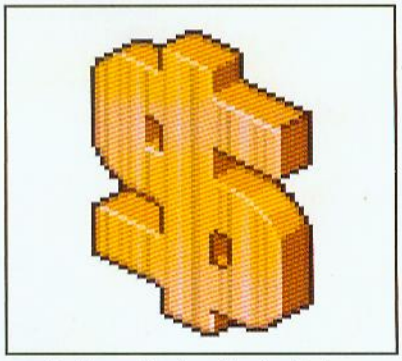
3 Turn the layer into a selection by clicking the layer with the Cmnd key held down, and use Select>Modify>Contract by 1 pixel. Fill this selection with white. Duplicate the layer and move the rear layer to the depth you need. Use the cursor key with the Move tool selected and stick to the rule of movement: two pixels left/right to one pixel up/down.



4 Merge the two layers together and delete any excess black pixels. Then connect the two shapes with the inner black outlines using the Pencil tool [B]. Fill the object using the Paint Bucket tool [G] with colour tones according to the direction of the light source.



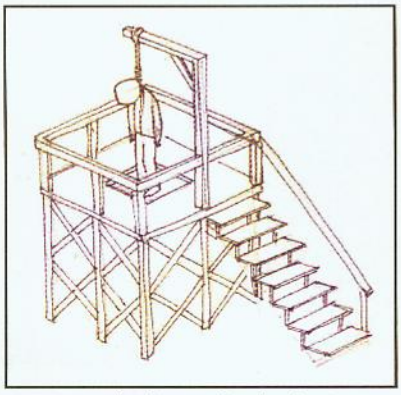
5 With the Pencil tool [B], fill the inner black outlines with highlight and shadow tones to give a more realistic look. To select and paint just the black pixels, use the Magic Wand tool [W] with contiguous and anti-aliasing off and Threshold set to 1. Then click on the black outline.



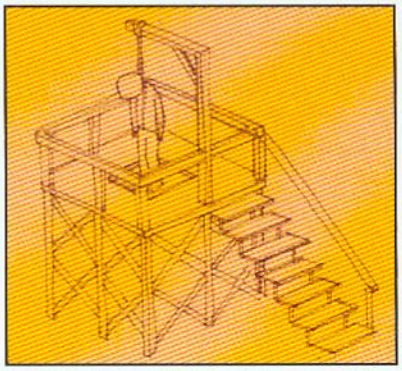
6 For the wood texture, stripe the object vertically with varying tones of the base colour. For extra depth, add a 40-per-cent opacity shadow line around the rear black outline.

Part 2: To the gallows with him!

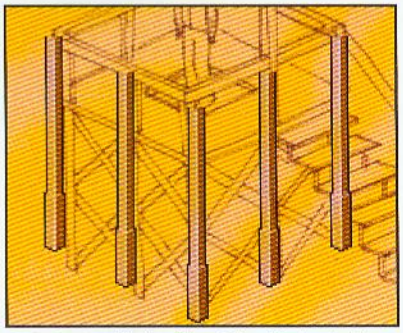
Build some isometric gallows and send a pixel man to his death...



1 For complex objects, rather than drawing from scratch in *Photoshop*, sketch the object isometrically (it doesn't have to be perfect, because it's just a guide). Scan it in and use it as a guide layer for tracing over in pixels.

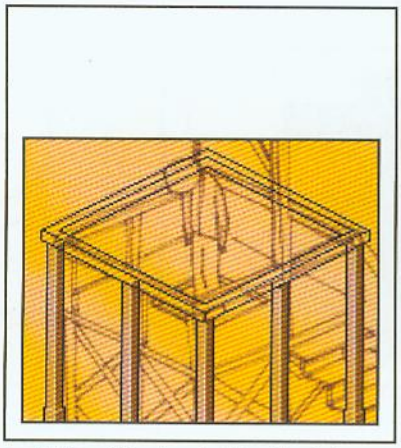


2 Copy the scan into the main document and scale it to the exact size and position you need using the Transform tool. Increase the contrast using Image>Adjustments>Levels to boost the clarity of the lines. Then set the layer opacity to 50 per cent so that your pixel lines don't get lost.

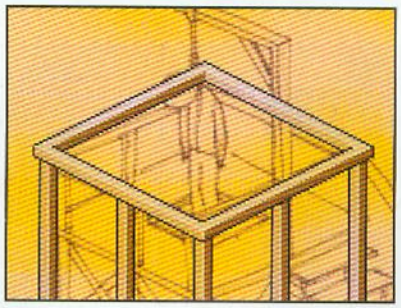


3 Create a black outline of the object using the Pencil tool [B]. Decide on a main light source direction (here it's coming from the upper left) and fill each face with a consistent base and shadow tone with a 1-pixel highlight line between the two shades. To make sure the duplicated posts line up isometrically, use the rule of movement: two pixels left/right to one pixel up/down.

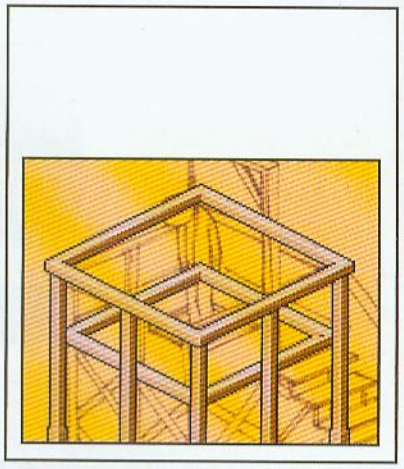
The gallows continued...



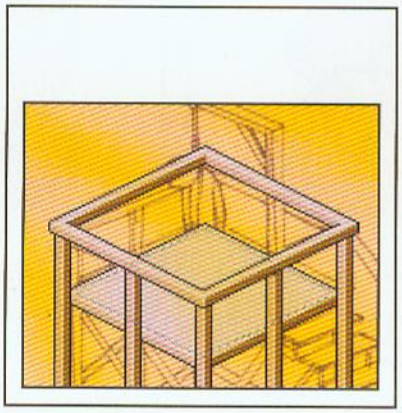
4 Using a different method from the struts because the lines here are angled, zoom in to 1,000 per cent and, with the Rectangular Marquee Selection tool,,select one pixel at a time. Hold down the Shift key to add more pixels to the selection. When you have your desired area, fill it with black.



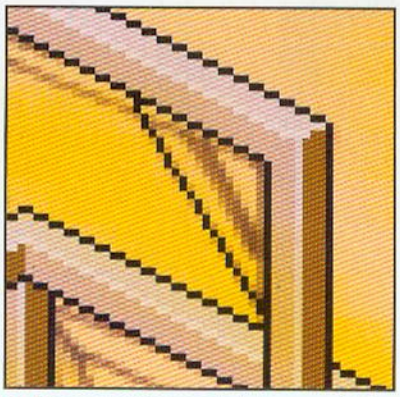
5 Once you have the black outline, use the Paint Bucket tool [G] to fill each face with the correct tone according to the direction of the light source. Make sure anti-aliasing is turned off. To add the highlights on the corners, use the Magic Wand tool [W] with anti-aliasing and contiguous turned off. Select all the black pixels on that layer, then switch to the Lasso tool [L] with anti-aliasing off and hold down the Shift and Alt keys. Draw round the corner highlight pixels (this leaves you with the corner pixels selected) then fill with the highlight tone. It sounds complicated, but in the long term it's the quickest and easiest method to fill awkward areas.



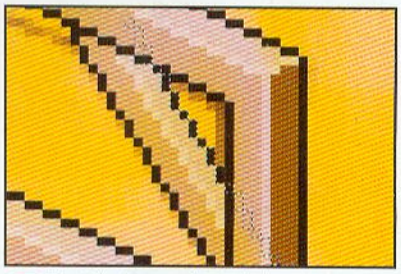
6 To build the floor, duplicate the handrail and move the layer behind the struts. Make it 'fit' isometrically by deleting approximately ten pixels from the centre. Then rejoin the two sides. Tidy up any visual pixel glitches that you can see.



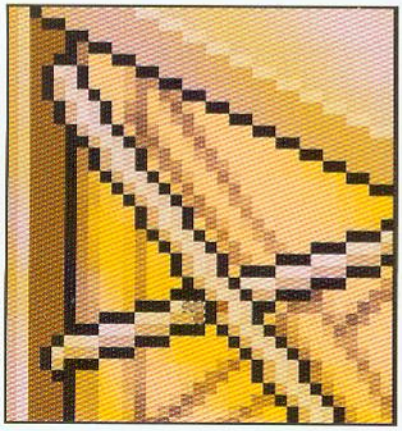
7 Use the Lasso tool [L] with the Alt key held down to select from point to point around the hole in the floor. Then fill with the base colour.



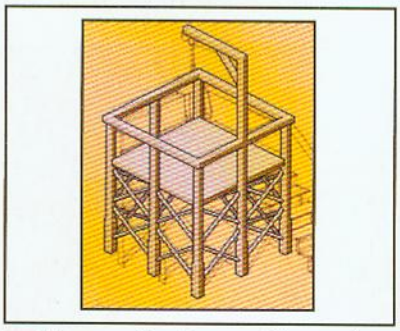
8 To construct the support strut, because this is a non-isometric angled line, select the Line tool [U] with anti-aliasing off. On a new layer, draw the line roughly as in the image above.



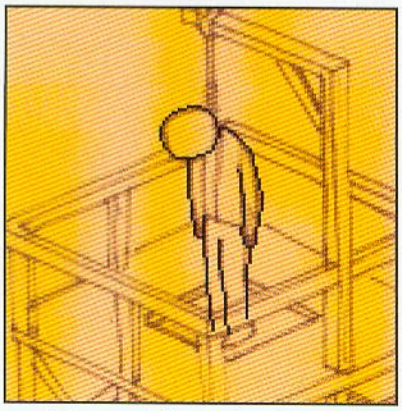
9 Select the Move tool [V]. Click on the line layer with the Cmnd key pressed down to turn it into a selection. Use the Eyedropper tool [I] to select the colour tone for that area from the nearby post, and move the selection with the cursor key to the right by 1 pixel. Press the Alt and Delete keys to fill the selection with the foreground colour. Repeat this process of moving the selection to the right by 1 pixel and filling with the correct colour. Continue like this until the post is completed.



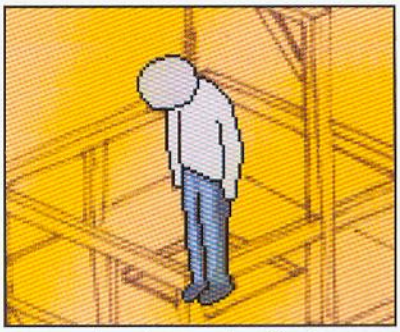
10 For these support beams, repeat the process described in Steps 8 and 9. Once you've got one set of support beams, duplicate the layer and move into the three remaining positions on that side of the structure.



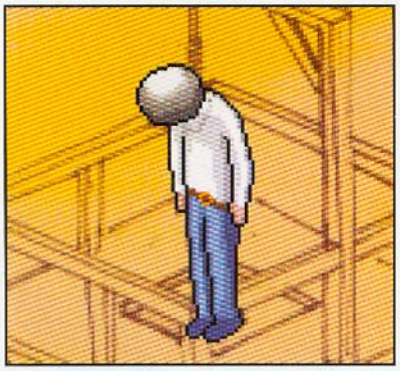
11 Then merge these four separate layers and duplicate them. Flip horizontally using the Free Transform tool [Cmnd-T] to create the right-hand-side's support beams. For the support beams at the back, duplicate a support beam layer, flip vertically and darken the tones using Image> Adjustments>Levels. Move the layers so that the shadowed beams are behind everything else. Continue building the gallows' frame and steps using the techniques you've learnt.



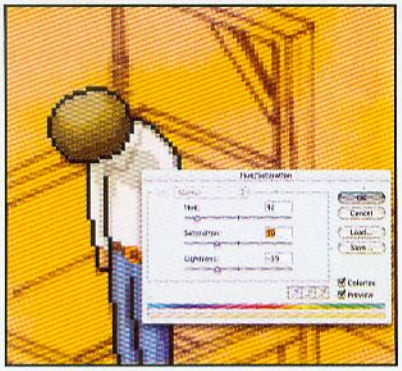
12 For an organic object, such as the hanged man, turn off all the other layers before beginning – this way, you can trace using the guide sketch. With the Pencil tool [B], trace the outline of the man. For organic lines, it's best to use a graphics tablet, but a mouse will do the job.



13 Once the outline is complete, fill each section with a base tone using the Magic Wand tool [W] then press Alt-Delete to fill the selection with the foreground colour. With the trousers selected (to act as a safety mask), choose your shadow tone and paint in the shadow according to the direction of your light source. Then paint in the highlights.



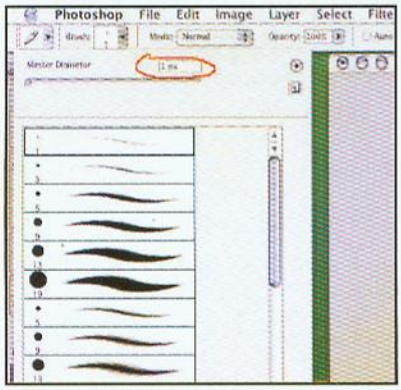
14 Continue building up the shading and highlights for the rest of his clothes and add details such as the belt and fingers. For the sack covering the head, more tones have been used to give a spherical appearance.



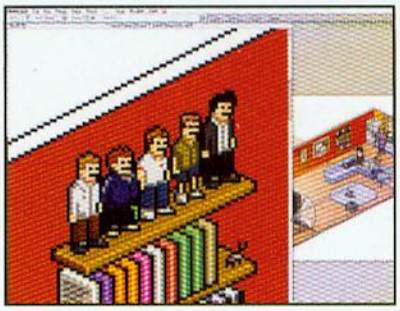
15 To quickly change the colour of selected areas (including the shading) use Image>Adjustments>Hue/Saturation. When finished, turn on all the layers to reveal the completed gallows and hanged man.

Part 3: The end is nigh

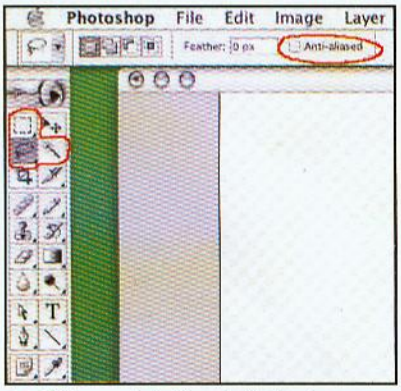
Prepare your illustration for print...



1 Open *Photoshop* and create a new document at 72dpi, or less if you want to save time on pixel-pushing. Select the Pencil tool [B] and the smallest brush available (1 pixel).

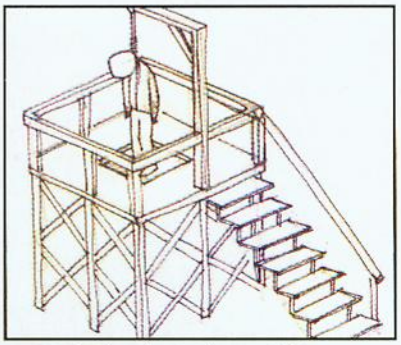


2 To help you get a good overview when creating the pixel objects, you need to open two windows of the same document: one for close-up work and one at 100 per cent for reference. To do this, open a new window (Window>Documents>New Window). Using this method, you'll always be able to see what's going on at both sizes.

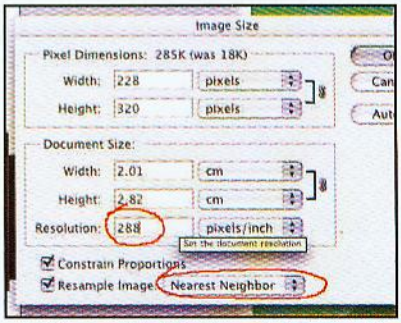


3 Make sure that all the selection tools you use, such as the Magic Wand and the Lasso, have anti-aliasing turned off. The Magic Wand has a Tolerance set to 1.

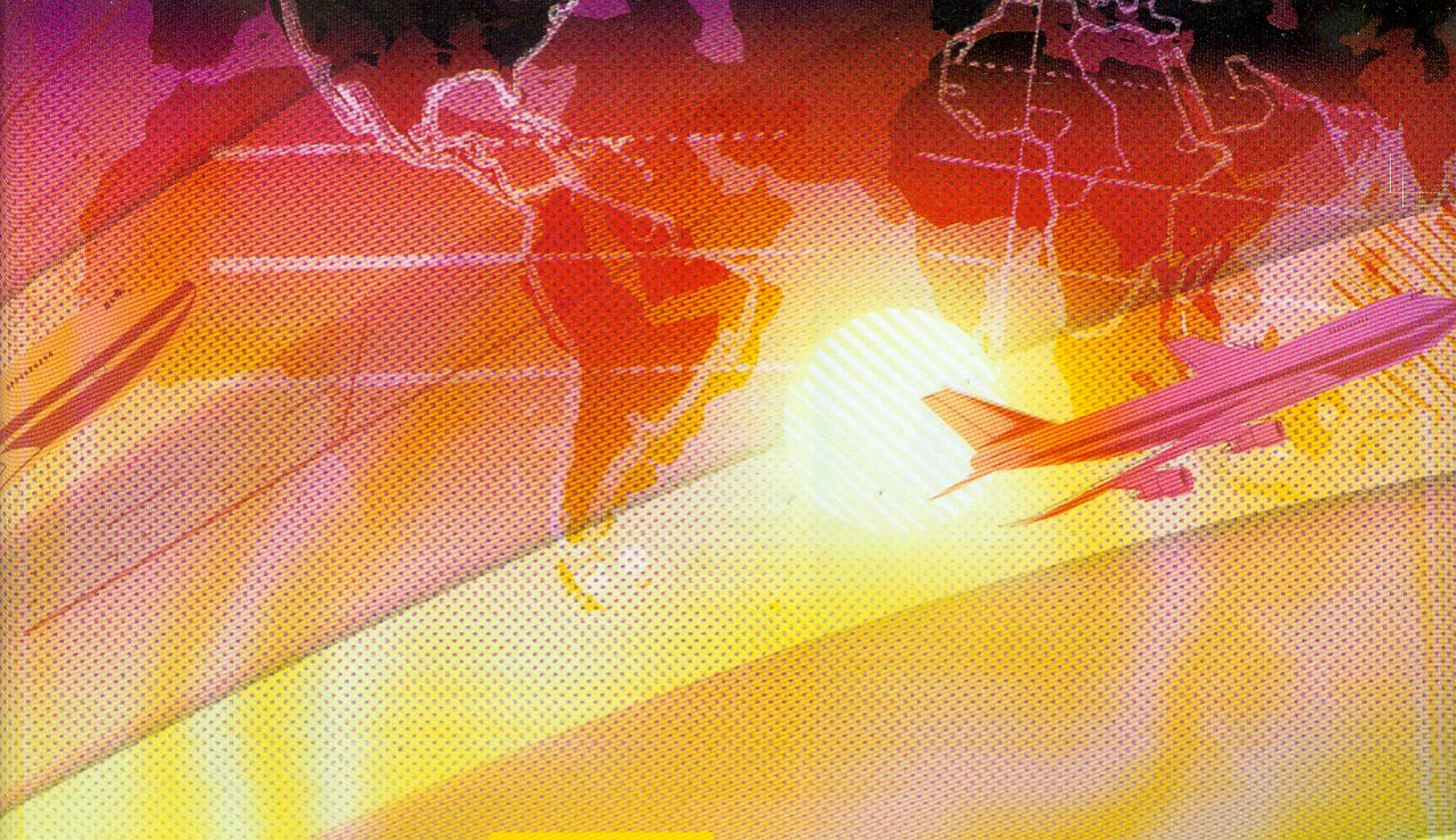
4 Create a Colour palette for the object you're drawing and use it when filling selections and painting in highlights and shadows.



5 Rather than drawing from scratch in *Photoshop*, sketch complex objects isometrically (or as close as possible). Using a pad of engineers' isometric grid paper will certainly help with this. Scan in your sketch and use it as a guide layer for tracing.



6 Once your illustration is complete and ready to go to print, you need to make the switch from 72dpi to print-level dpi (around 300dpi). The closest multiple of 72 is 288. In *Photoshop*, go to Image>Image Size and change the dpi setting to 288. In the Resample Image option, select Nearest Neighbour. Your image is now ready for output. ca-p



SECTION **SIX**

Understanding structure & composition

Illustration: Magictorch [w] www.magictorch.com

Magictorch shows you how to compose a balanced, eye-catching magazine illustration...

We're going to explore how to place various elements in an image to give it an attractive, balanced composition which draws the eye into, and around, the page. We'll also treat it as a professional job, taking into account the compositional hurdles you might have to jump when producing an illustration for a magazine.

Rather than getting too bogged down with technique, we'll look at the structure of a composition and concentrate on how all the disparate elements should work in harmony.

The aim is to create an aspiring, positive image – something sunny to warm up the winter months. There will be a passing nod to the glamour of the Eighties, with the Miami Vice sunset colours and the use of diagonal graphics. We'll also talk about narrative, and how the theme of travel is emphasised as the eye journeys across the page to the final destination. Using *Photoshop*'s invaluable layers, all the elements can be combined in an infinite number of ways to achieve the composition we're looking for.

All the components needed for this tutorial are on the cover CD. Navigate through the following folders: Software\Tutorials\Composition tutorial\Dual.

Expertise provided by Magictorch. Visit [w] www.magictorch.com

Magictorch

Magictorch was set up by gardener Sam Williams and disgruntled Web designer Mike Chipperfield. "I was sick to death of dog shit exploding under my lawnmower," explains Sam. "And I was getting bored with working for the man," chips in Mike.

Magictorch was the focus of a mutual love of *Tron*, Syd Mead, John Harris, *Star Wars*, beer and *Photoshop*.

After a four-year gestation period, Magictorch finally made the full transformation from alcohol-fuelled ranting to sober reality and emerged fully formed in the winter of 1999 in a shed at the bottom of Mike Chipperfield's garden. Around this time, there seemed to be a shift in the way digital illustration was being received: people like Attik, Tomato and The Designers Republic were paving the way for a new way of working.

Magictorch thrived in this new aesthetic, and after a couple of months it had a fairly respectable client list including *Dazed And Confused*, *MacUser* and *Computer Arts*.

The decision was then made to move from the sweatshop conditions of Mike's garden shed to the more spacious environment of a studio in the centre of Brighton's sprawling metropolis.

A couple of years later and with a couple of hundred commissions under their belt, the pair realised that workloads had increased sufficiently to warrant a vector injection. Therefore, Magictorch assimilated the strange talents of Sam Chivers, a frustrated comic artist turned proper illustrator. Since Sam's arrival, a wider range of styles has been realised, which is an important asset in an industry subject to a constant state of flux.

Not content with being just illustrators, Magictorch has also turned its gaze to the world of the stock library. With the recently launched Stock-cube.com, the boys have turned to selling the work of others in the hope of creating a more artist-orientated and profitable solution to this arena.

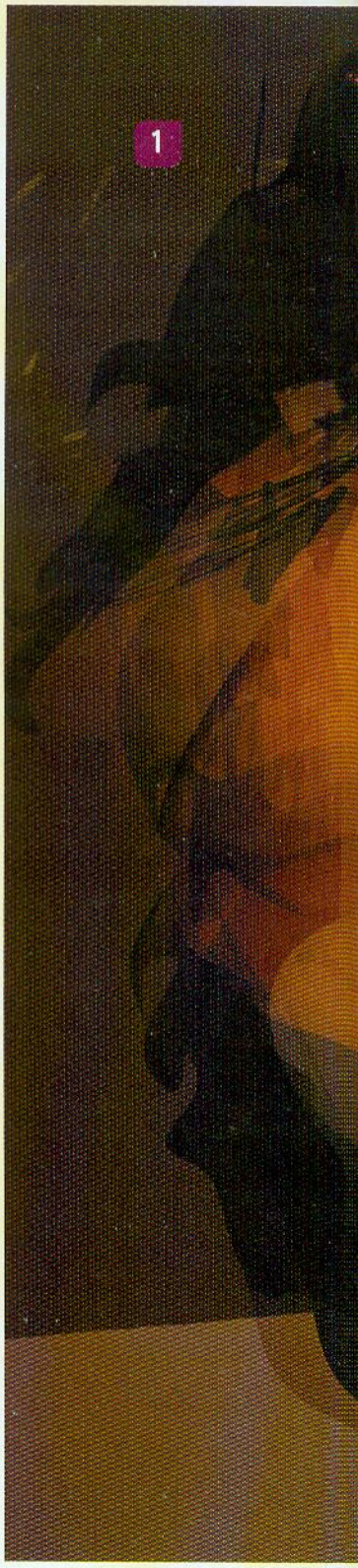
For more information on Magictorch, visit [w] www.magictorch.com and [w] www.stock-cube.com

In the spotlight...

Monster Invisible
by Sam Chivers

This image is about the evil that lies within; the darker recesses of the human brain; the monster in the shadows. I came up with it one afternoon when I was at a loose end.

I find that creating an image is an intuitive process – the composition usually evolves as I work, rather than being pre-planned. It's interesting to dissect an image after its inception and understand the different forces at work within it, many of which occur instinctively.



1 This image is split into three vertical sections, so immediately we have a classical balance within the illustration by following the rule of thirds.

2 Initially, the viewer is affected by the colour composition of the image. The red of the monster pulls in the gaze.

3 Next, the eye is lead by the shadow from which the monster emerges across the page to the figure of the man, who is the main focal point of the image.

4 This shadow forces the eye back and forth across the image as it spreads from the man to form the base of the monster.

5 The human figure is the focal point of the image even though he's so much smaller than the monster. He contrasts tonally with the background and forms a strong vertical.

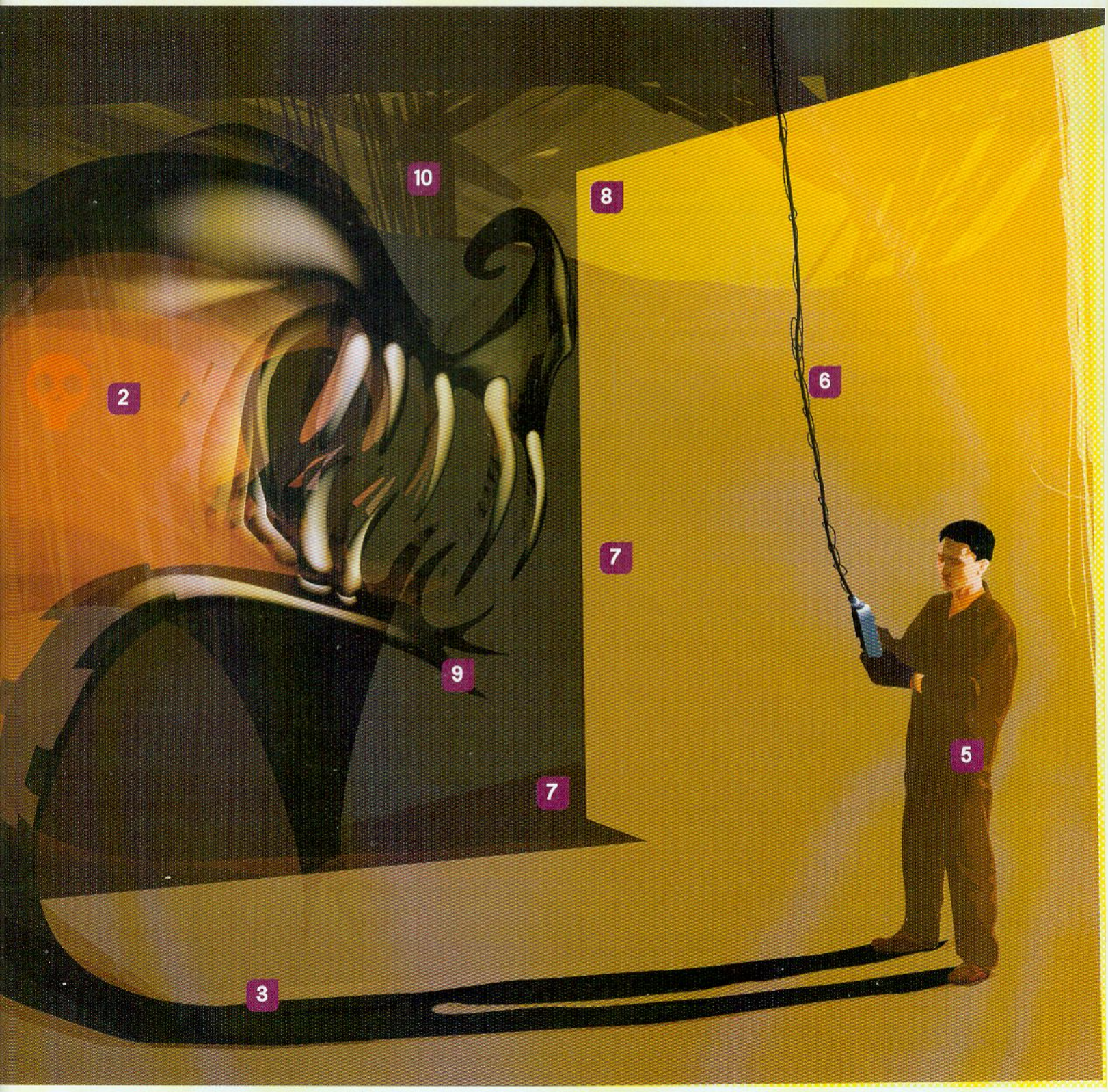
6 The cable for the garage door controller combines with the man to reinforce the vertical element. It also falls neatly on the golden section, strengthening the idea that the man is the focal point.

7 It is a subtle effect, but there isn't an exact 90-degree angle anywhere in the image – the slightly off-kilter lines disorientate the viewer and heighten the disturbed atmosphere.

8 The yellow overlaid in the top-right of the image gives the composition some distance, suggesting some warm light somewhere beyond.

9 The tonal balance and the strong hard lines give structure to the illustration.

10 The whole image is unified by the rough drawn lines etched into the various layers of colour. These lines heighten the sense of angst within the composition. This rough-hewn feel also gives the image an impression of vibrancy and immediacy.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Ten expert tips

1 Don't centre things

Always place your subject matter off-centre. This will immediately make your composition more dynamic. Symmetrical compositions inevitably feel staid and static.

2 Look at the horizon

Use your horizon to maximum effect. To create distance and space in a composition, place the horizon low in the picture. To bring things closer to the viewer, place it high up in the image. As with the subject matter, avoid placing the horizon line across the centre of your image.

3 Choose your subject

Choose your main point of interest and stick to it. Use lines to lead the eye around the image and ultimately towards your subject. Diagonal lines create a dynamic effect, while curved lines are graceful.

4 Vary your specifications

Try different canvas orientations. Unless you're producing an image to specific dimensions, try changing the aspect ratio of it. Choose super-widescreen or a portrait layout if you normally go for landscape. This should liven things up a bit and prevent you from producing the same composition time and again.

5 Try cropping

Cropping your image in different ways can create entirely new compositions. If your image is large enough then you can try a multitude of vertical, square and horizontal crops – you'll be amazed by the results.

6 Let it breathe

Don't be afraid to leave blank space in your image – the last thing you want is a cluttered mess. Make sure you leave breathing room for your subject too.

7 Magazine artwork

Remember to allow for 'page furniture'. Have you left enough space for the text and headline? Is the message in your image obscured by the page fold? You must think about these things early in the project.

8 Use white space

Try breaking out of the canvas if you're working in print. You can use the white space of the page in your illustration – allowing elements to break out of the image and onto the white of the page adds an extra dimension.

9 Name your layers

Once you start working on an image in *Photoshop*, it's easy to get carried away with the layers – you'll often end up with an image that contains over 100 layers. Unsurprisingly, this can get rather confusing, so it's good working practice to name your layers as you go, putting similar layers into layer sets. This may sound boring, but it'll save you time in the long run.

10 Be aware

Look around you. Take a close look at images you see in magazines, on posters, and so on. Ask yourself why some compositions are more successful than others and then apply the knowledge to your own work.

The rules of composition...

For a composition to work, you'll want the image to have an inherent balance or equilibrium. This doesn't mean 'put everything in the middle' – if you place your subject in the middle of the canvas, you'll draw in the viewers' gaze but then they'll lose interest quickly because there's nowhere else for them to go.

For a start, try the rule of thirds. Use lines to split your canvas into thirds horizontally and vertically so you end up with a grid of nine chunks of space. This rule states that your subject should sit at any point where the lines intersect – in other words, don't put your subject in the middle square. It's then a good idea to place a secondary subject (perhaps a foreground or background element) at an opposing intersection. Immediately, your image will have balance, and the viewer's eye will travel around the image.

There have been various compositional rules set down in the past: the ancient Greeks came up with the 'Golden Rule' (similar to the rule of thirds), which used mathematics to describe the ideal layout; German and Austrian psychologists in the early 20th century investigated how the human mind perceived visual stimuli and then came up with a system of principles known as 'Gestalt theory'.

If you are curious, there are some resources on the Web explaining these theories in greater detail. Do a search in Google, or try some of the excellent articles by Michael Fulks and John Boyd. Some of these articles are geared towards photographers, but you'll find that the same rules apply for designers and illustrators.

Michael Fulks: [w] **www.apogeephoto.com/tech_archives.shtml**

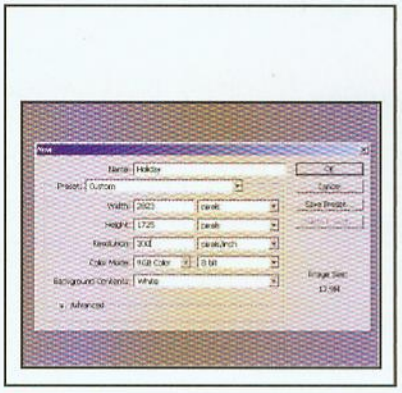
John Boyd: [w] **http://photosoc.wellington.net.nz/articles/composition.php**

Part 1: Setting the foundations

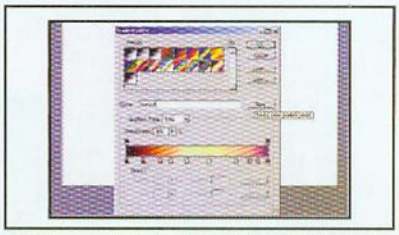
Let's start by creating a new document for our magazine DPS illustration. We'll do it at half size because this file will soon become unwieldy when we start chucking a lot of layers around...

Note for Mac users

If keystroke shortcuts specify a right-click then hold down the Control key and click with your mouse instead. Where there's a reference to the Ctrl key in Windows, simply use the Cmnd (Apple) key.



1 Create a new document [Ctrl-N]. In the New Document dialog box enter 2823 pixels for the width and 1725 pixels for the height. Check 300dpi and 8-bit RGB. Call the image 'Holiday'. Then click OK.



2 First, create the background gradient. Select the Gradient tool [G] then click on the gradient to edit it. In the Gradient Editor, click on the slider on the bottom-right of the gradient bar, then click on the colour box and choose a vibrant purple. Change the slider at the other end to a dark brown. Now add other colour points along the gradient by holding down the Alt key and dragging on an existing slider to duplicate it. Add various oranges, yellows and pinks until you have the best sunset gradient possible. Add the gradient to your presets by giving it a name and hitting New. Click OK and apply the gradient to the image by dragging from the bottom to the top.

3 Now bring in the various building blocks from the cover CD. Open Plane.psd and duplicate the Plane layer set into our Holiday image. Do this by right-clicking (Ctrl-click for Mac users) on the layer set. Choose Duplicate Layer Set and select Holiday as the Destination Document. Repeat this action with Sun.psd, Clouds.psd and Maps.psd. Place them in that order in your Layers palette with Sun at the top. Don't worry about positioning them – we'll move things around in a minute.

Part 2: Putting it all together

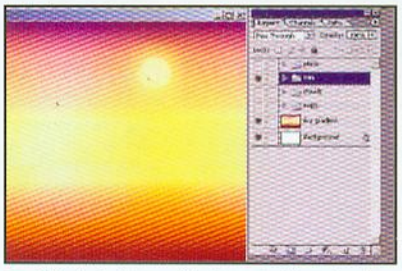
Leave a relatively clean area for text at the bottom-right of the image and take care not to put anything important across the centre or it could get lost in the page gutter...

Focal point

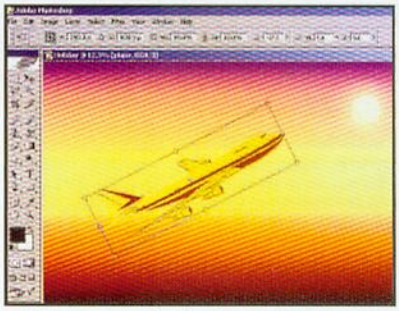
More often than not, the eye tends to enter an image from the bottom-left and move through the image from left to right. This isn't necessarily a rule to live by, but it's a good place to start. So good, in fact, that we'll base our composition around this theory.

Organise your layers

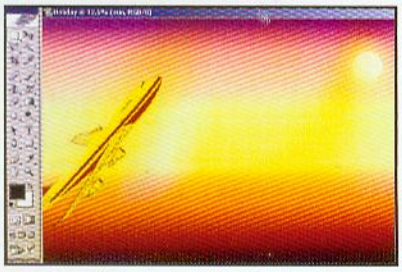
Keep the Layers palette tidy by putting all your Plane layer sets into one master layer set. Make a new layer set called All Planes and drag and drop each individual plane into it.



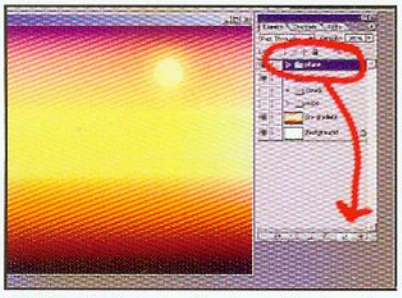
1 The basic theme of the image is international travel to warmer climes. So let's start with the focal point of the image – the destination – which in this case is the sun. Switch off the other layer sets by clicking each eye icon in the Layers palette. Now move the Sun layer set with the Move tool (V or hold down the Ctrl/Cmnd key in any other tool). Place it somewhere around the top-right of the image.



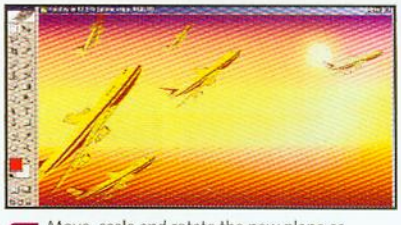
2 Now turn on the Plane layer set. We're now going to scale and rotate the plane using the Transform tool [Ctrl-T]. Click and drag on the canvas area to rotate. You can also click and drag a corner handle while holding down the Shift and Alt keys to scale the plane.



3 Place a large plane on the left side of the image as if it were taking off. This will be the main element on the left page of the spread, so imagine that page and make sure the plane sits well within it. Leave the tail of the plane off the edge of the canvas – this gives the plane a sense of potential, as if it's breaking into the composition from off the side of the page.



4 Now duplicate the Plane layer set by dragging and dropping it onto the Create New Layer icon at the bottom of the Layers palette – it's the one which looks like a folded piece of paper.



5 Move, scale and rotate the new plane as before, but this time make it smaller as if it's further away. Position it at a different angle to give the impression that it's taken off from the same airport somewhere just off the bottom-left of the page. Repeat this process until you have a fleet of planes fanning out and arcing towards the right. Make sure one plane is flying in front of the sun.

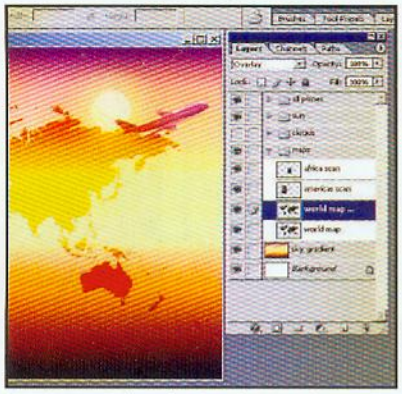
6 Re-colour each plane so it works in harmony with the background gradient. Select the Plane Shape layer in each layer set, then go to Hue and Saturation [Ctrl-U]. In the dialog box, drag the Hue slider until you're content with the colour of each plane against its area of the background.

Part 3: Emphasising the focal point

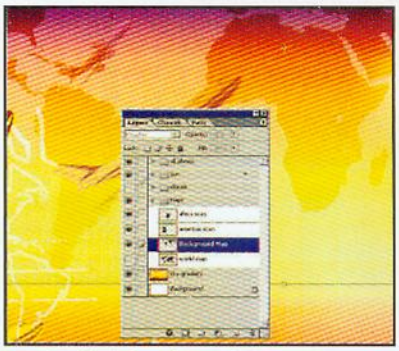
Frame the sun with darker areas to increase contrast and pull the eye towards it...

Learn the rules

Composition is a very difficult thing to learn. Over the centuries, many learned people have tried to analyse what pleases the eye and lay down rules for the perfect composition. However, truth be told, it's as much about intuition as anything else. If a composition looks good to you then it's likely that it'll look good to other people as well. Treat this tutorial a bit like a Lego set: all the building blocks are there, but it's up to you how you use them. You can follow the instructions in the steps to get the hang of things, but the fun really starts when you improvise and build something new and unique.

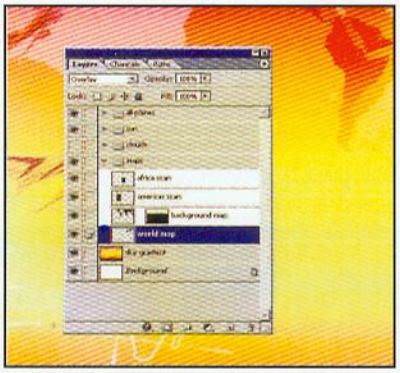


1 Now switch on the Maps layer set. Open up its contents by clicking the arrow on the left of the set. You'll see three separate layers. Select the World Map layer and duplicate it in the same way we did with the layer set a couple of steps ago.

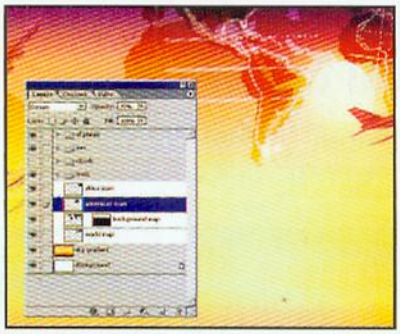


2 Double-click on this new layer's name to rename it, and call it 'Background Map'. Change its layer setting to Overlay and set its transparency to 60 per cent (both at the top of the Layers palette). Move it around and scale it up a bit [Ctrl-T] so that the sun sits in the Indian Ocean somewhere between India and Africa.

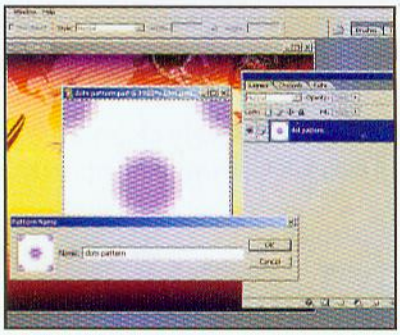
3 Now make a selection using the Rectangular Marquee tool [M] of the whole of the top of the canvas down to the bottom of the sun. Feather the selection [Ctrl-Alt-D] to a value of about 150 pixels. Click the layer mask icon at the bottom of the Layers palette – it's the one which has a white circle in a grey box. The bottom of the map should now fade gradually into the background.



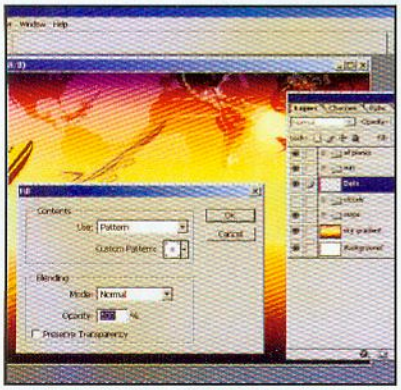
4 Select the World Map layer. Scale it down and move it so that the sun sits nicely in the Atlantic Ocean between South America and West Africa. Make sure this layer is set to Overlay at an opacity level of 100 per cent.



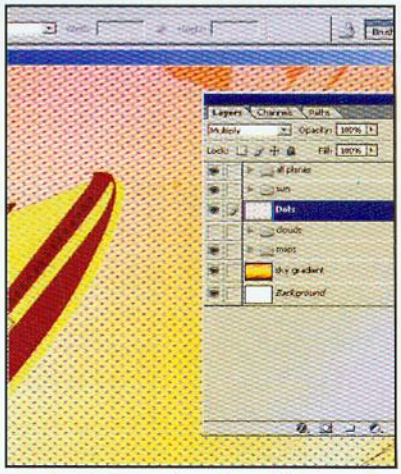
5 Select the Africa Scan layer and set it to Screen and 70 per cent opacity. Move it to the right of the sun so it sits roughly in line with the World Map layer. Do the same with the Americas Scan layer. Don't worry about lining them up perfectly – the offset layers and slight mismatching gives the image more oomph.



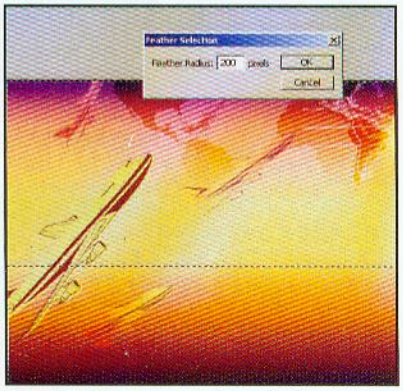
6 We still need a bit more contrast around the sun. For this, we're going to add a dotted pattern to the top of the image. Open up Dots Pattern.psd from the cover CD, Select All [Ctrl-A], and define it as a pattern – do this by going to the menu bar and choosing Edit>Define Pattern. Type in 'Dots Pattern', and click OK.



7 Create a new layer between the Sun and Clouds layer sets. Click the New Layer icon at the bottom of the Layers palette and set the blending mode to Multiply. You need to fill the layer with the pattern, so go to Edit>Fill. Choose Pattern from the first drop-down, then choose your new Dots Pattern from the Custom Pattern drop-down. Click OK.



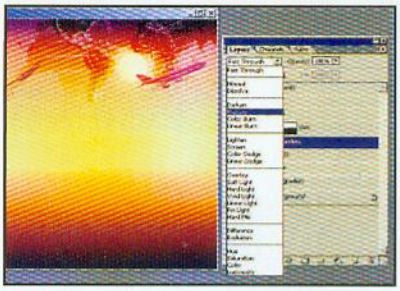
8 You should now have a layer of dots across the image, making the whole thing appear darker. We want only the top area of the image to be darker, so we're going to add a layer mask.



9 As before, make a selection using the Rectangular Marquee tool [M] of the whole of the top of the canvas down to the halfway mark. Now feather the selection [Ctrl-Alt-D] to a value of about 200 pixels. Click the layer mask icon at the bottom of the Layers palette. The bottom half of the dots should now fade gradually into the background, and the top of the image will have more contrast.

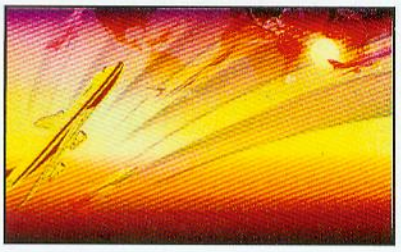
Part 4: Giving the image some sweep

Link the two sides of the image to give the whole thing a greater sense of narrative, distance travelled and time passed...



1 In the Holiday image, create a new layer set by clicking the folder icon at the bottom of the Layers palette. Call it Swooshes and set the blending mode to Multiply.

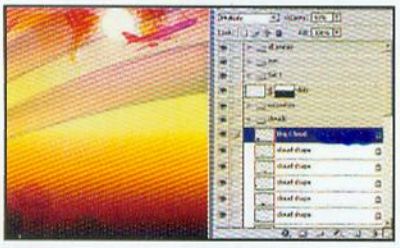
2 Open up Swoosh.psd from the cover CD and duplicate the layer into the Holiday image, then pop it into the layer set you just created in the previous step. Duplicate this new layer until you have five separate layers in the Swooshes layer set.



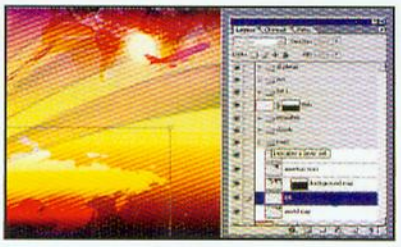
3 Using the Transform tool [Ctrl-T], create a fan effect with the five swooshes, echoing the movement of the planes and leading the eye from the bottom-left of the image to the top-right. These swooshes will also end up conveniently framing the text area.

Part 5: Bad weather

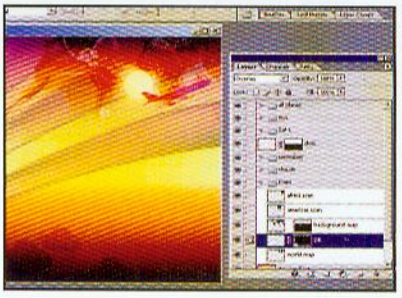
Add a bank of cloud and a map to highlight the UK and reinforce the idea of a journey taking place...



1 Switch on the Clouds layer set and switch its blending mode to Overlay. Crack it open and duplicate each type of cloud several times. Now start to build up a bank of clouds around the bottom-left of the image. Vary the size and opacity of each cloud as you go, overlapping them here and there. Make sure there's one big solid cloud in the bottom-left corner because we're going to use this to frame the map of the UK. Call it Big Cloud for future reference.



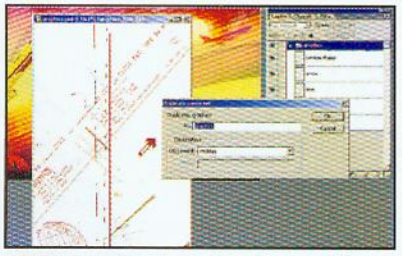
2 Now go back to the Maps layer set, select the World Map layer and duplicate it [Ctrl-J]. Rename the layer 'UK'. Invert the layer [Ctrl-I] so it's white and set the blending mode to Overlay with an opacity of 100 per cent. Move the UK layer [V or Ctrl-click-drag] so the UK has pride of place in that large cloud we placed in the bottom-left of the image. You may need to scale the map up or down according to taste.



3 We now need to mask out the rest of the world, just leaving the UK and part of Europe in that cloud shape. So, right-click on the Big Cloud layer in the Clouds layer set and choose Select Transparency. Now select the UK layer and click on the Add Layer Mask icon (the white circle on the grey square).

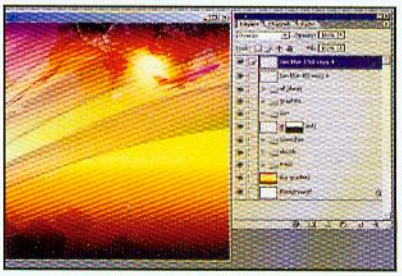
Part 6: Finishing touches

All that remains is to add some final graphics and make the odd tweak...



1 Open up Graphics.psd from the cover CD and duplicate the Graphics layer set into the Holiday image. We want to highlight the movement of the planes and reinforce the motion through the image towards the sun. So duplicate, transform, reposition and alter the opacity of each graphical element until you've built up a good mix – how much you add is really down to personal taste.

2 To finish things off, we just need to give the sun a bit more heat. Crack open the Sun layer set and duplicate one of the Sun Blur 150 layers. Drag this layer up the layer order until it sits above the Plane layer sets. Duplicate it again. Now the sun is bleeding through and around the edges of the plane we placed in front of it earlier.



3 You should now have a balanced image which works well as a standalone composition, leading the eye in and across the image towards a solid focal point. Not only that, but it also works as an image which spreads across two pages, with strong elements on both pages and plenty of space for the magazine text. CD>p

SECTION **SEVEN**

Working with Web images

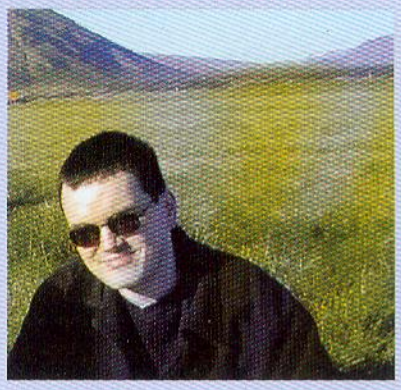
Download-speed, compression, compatibility and compromise soon become familiar words when working with images for the Web. Craig Grannell shows you how to avoid the traps...

Because it seemed to appear from nowhere and has been widely accepted as just another means of communication, many forget that the Web is still in its infancy. In fact, although many now rely on it during their working lives, the 'popular Web' has only been in existence for about eight years. And while there have been some great technological leaps in various areas, the technology governing the display of images simply hasn't been one of them. With all its restrictions regarding file formats, compression and resolution, the Web can be a veritable minefield when it comes to working with images.

Over the next few pages, Craig Grannell shows you how he created the graphics for his 'Images from Iceland' Website. Along the way, he provides you with a number of tips, and explains how to work with some of the cutting-edge new tools in *Dreamweaver MX 2004* and *GoLive CS*.

Expertise provided by Craig Grannell. Craig can be contacted at **[e]** craig@snubcommunications.com or via **[w]** www.snubcommunications.com

Craig Grannell



Craig has been working with digital media for about ten years, first cutting his teeth on embryonic versions of *Photoshop* and *Director*. A love of writing, video and interaction gradually saw him gravitate towards the Web, where all of these things could be successfully combined. Since 1997, his Snub Communications outfit has offered cutting-edge digital design services, typically aimed at the Web.

His style is fairly minimal, but stylish, and over the past few years he's become something of a stickler for Web standards, so he always ensures his Websites are both usable and accessible. However, Craig believes that creating usable, accessible, standards-compliant Websites needn't come at the expense of visual design.

Over the years, Craig has worked on projects for a range of clients in very different fields. Early clients included the likes of Cardiff City Council, the Site-Ations art project, and video work for Z Productions. More recently, he's collaborated with Swim~ Records, created new designs for *2000 AD*'s Website, and is currently working on several high-profile projects.

Along with design, Snub Communications also offers copywriting services, and Craig's words can be found in a number of well-known design and Internet magazines. As well as contributing to the press, he occasionally writes books, and his latest, *Foundation Dreamweaver MX 2004*, is due for release in spring 2004.

For more information about Craig and his work, visit his Website at [w] www.snubcommunications.com, or you can email him at [e] craig@snubcommunications.com

Your guide to Iceland...

The masthead

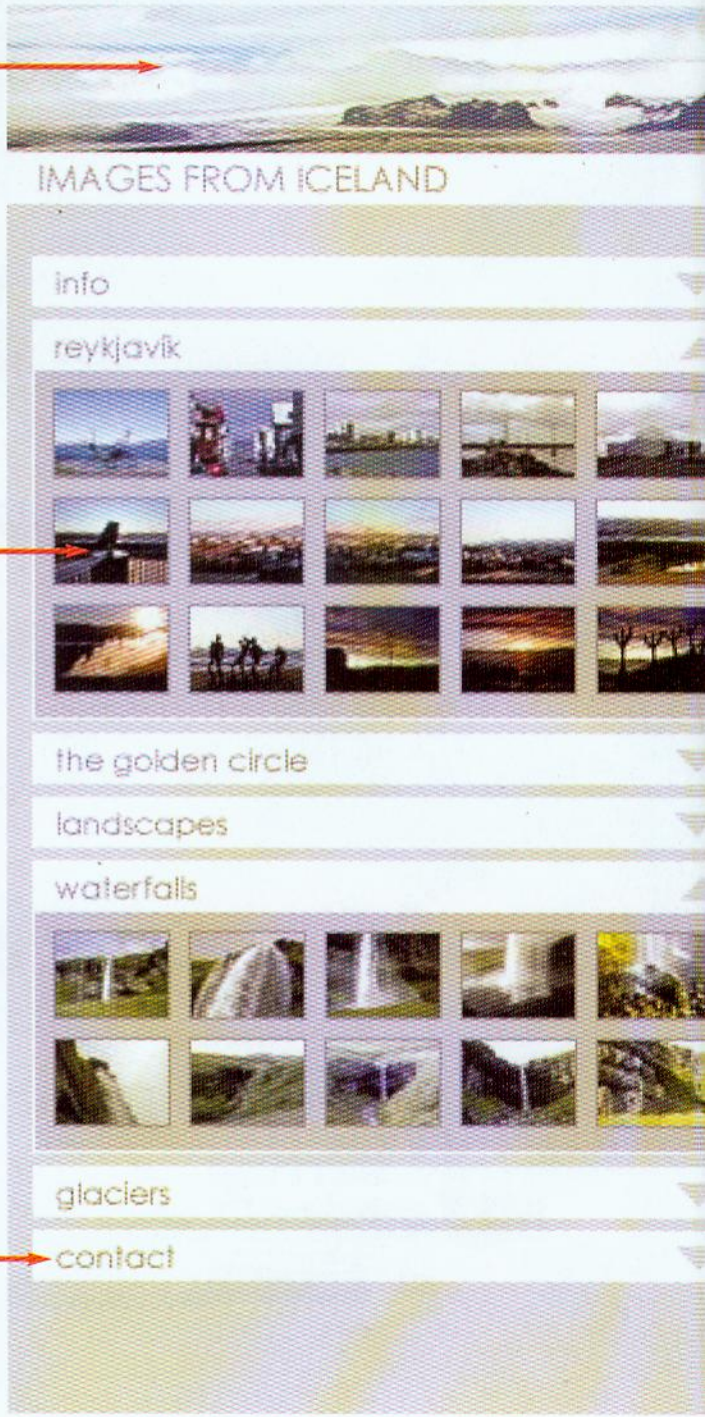
A striking image was needed for this part of the design, but it couldn't distract from the main image too much. Therefore, this mountain shot was used to highlight the stark but beautiful nature of many of Iceland's landscapes. The fairly neutral palette means it doesn't divert attention too much, but the almost black mountain on the right-hand side proves useful in drawing the eye slightly to that side of the design, in the direction of the main photograph.

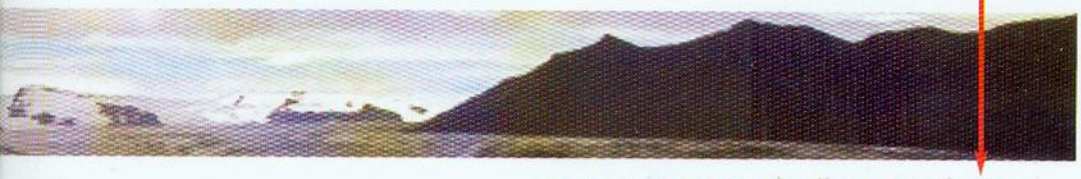
Thumbnail images

Like many portfolio-based sites, I decided upon a system of thumbnails to access larger images. However, due to the one-page nature of the site design, these must be downloaded prior to exploring the photos, so compromises had to be made. The thumbnail sizes were reduced, and the compression level increased. Care was taken not to make them so small that you couldn't tell what the images were, and any loss of detail due to compression and resizing was countered slightly by an increase in contrast, to make them more vibrant. Because these images aren't as visually important as the main one, I wrote a Photoshop action to do all these things, thereby speeding up workflow.

File names and organisation

While it's not obvious from the final design, care was taken to name each exported file logically. The names directly relate to the images, and thumbnails were given identical names to their larger counterparts, but with the addition of a t_ prefix. This means that all images can be found and replaced quickly in future. Web images, like other Web files, should only be named with a combination of lower-case and underscores. Avoid uppercase or spaces – many servers can't handle them.





www.snubcommunications.com/iceland

Working with copy

Although I was content using a Web-standard font for the site's body copy, none of the available fonts were suitable for headings. These were therefore rendered as images. However, when doing this, you must take care to ensure text remains legible: contrast must be reasonably high and the font not too esoteric. I used a mid-grey on white, and a simple, but contemporary, font. All such text was saved in the GIF file format, so it remained crisp and sharp.

The main image

People are often told that no Web images should be over a certain file size – typically around 50k – but on portfolio sites, people are choosing to download specific files. Therefore, the main image can have relatively little compression. I avoided compressing each photo by a uniform amount, because some shots lost relatively little when compressed by up to 50 per cent, whereas others suffered with far less compression. The final images vary from 25k to 80k in size. Of course, online photography is always inferior to the original product, but the gulf can be minimised by working as I did, and avoiding the 'one size fits all' mentality.

Design for screen

The original layout for this site was designed directly for screen, with plenty of flat-colour backgrounds and rectangular sections. This meant there was no need to create monstrous nested tables, and no need to slice up a complex Photoshop layout. One of the main problems in using a lot of slices is when they're compressed at different levels: if there are many artefacts, the 'joins' often become obvious.

Borders for images

Unless you require something flamboyant, avoid exporting Web images with borders around them. Single-colour borders of any thickness can be added using Cascading Style Sheets. What's more, you can define styles site-wide, so if you want to change them, you only have to edit one text-based file rather than re-export all your images. My 'Images from Iceland' site makes use of two such styles: a large, white border on the main photograph, and a thin, grey border on each thumbnail.

Cross-platform optimisation

When you output for print, you only have one target per project, but this isn't true of the Web. The vast amount of potential hardware and software combinations meant that the images had to be checked on Macs and PCs, and on CRT and TFT displays. In some cases, images were too dark when viewed on Windows PCs, so they had to be re-exported at a 'compromise' setting which looked good on both platforms, and on all available testing monitors.

Ten expert tips

1 It's all low-res now

Typically, when working in print, the higher the resolution, the better the result. The same isn't true for Web. When outputting images, stick to 72dpi.

2 Appropriate for screen

Never make the mistake of simply transferring print design to the Web, because they're very different media. What works in one won't necessarily work in the other, and crops, colours, contrast and readability vary massively between screen and the printed page.

3 Never resize in HTML

Some designers make the mistake of resizing and stretching images in Web-editing applications, and while some, such as *GoLive CS*, can be set up to resample from originals, this usually isn't the case. In general, images resized in a Web editor will look distorted in Web browsers. Therefore, resize your images prior to constructing your Web pages.

4 Millions of colours

Now and again, some bright spark says you should be using the so-called Web-safe palette for Web images. We suspect such people also still advocate font tags and the *Mosaic* Web browser. The truth is, Web-safe colours never really were, and the vast majority of Web users browse with monitors capable of displaying millions of colours.

5 Save your originals

A common mistake people make when working with Web graphics is resizing their original images, then compressing them, saving them over the original, and discovering the quality is too low. If you don't have a Web design package that automatically resamples from original files, ensure you save resized graphics at maximum quality, and re-save them as JPEGs or GIFs with a different file name. Never overwrite your originals — that way, you can go back to them if you need to.

6 When to use JPEG

The JPEG format is 'lossy'. In other words, the greater the compression, the more detail is lost. Typically, JPEG works fairly well up to around 50-per-cent compression — thereafter, artefacts distract from the image. Because the format can display millions of colours, it's best used for those with continuous tones, such as photographs.

7 When to use GIF

GIF is a 'lossless' format, which means detail isn't lost. However, its restriction of 256 colours means it's only suited to text and images with flat colours, such as logos. Due to the way in which GIF compression works, the smallest files are those with fewer broken horizontal lines (so a GIF composed of horizontal stripes is smaller than the same image rotated 90 degrees). Despite the name, transparent GIFs (or GIF89s) don't work like print transparency. Instead, you have the option of removing a single colour only.

8 What about PNG?

Once hailed as the successor to other Web graphics formats, PNG potentially enables Web images with true transparency, but *Internet Explorer for Windows* (used by over 90 per cent of those online) doesn't support this feature, which is a pity.

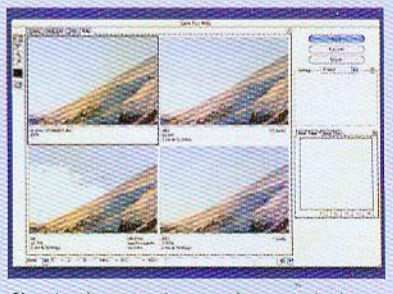
9 Gamma settings

Unlike many other industries, the design industry has many Mac users, but most Web users are Windows-based. PC displays tend to be darker than Mac ones, so Mac users working on Web images should change their monitor settings to PC gamma when working on Web images, or get a PC to test on.

10 Every site is different

Remember this point, because it's perhaps the most important in this article. This is why we've avoided such general statements as "no Web images should ever be bigger than 50k". In some cases, large images may be appropriate, and in other cases, they won't. As long as you cater for your target audience, you should be fine.

This exaggerated example highlights the dangers of resizing images in HTML, or by stretching them in a visual Web editor: JPEG artefacts become more apparent, proportions aren't constrained, and the end result is distorted.



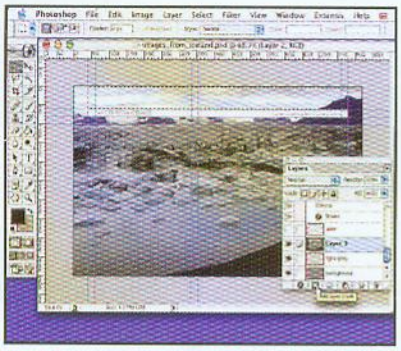
Choosing the correct format and compression is essential, as shown here. The top-right image has slight JPEG compression. The bottom row shows GIF, with colour banding, and a heavily compressed JPEG, with obvious (and ugly) artefacts.

Part 1: Creating a masthead image

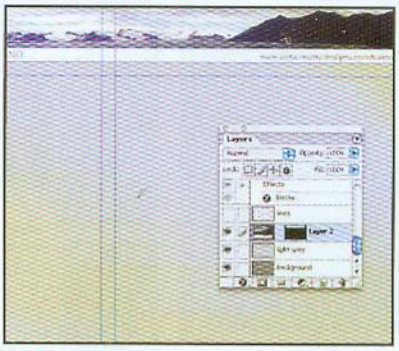
Import your photograph, edit it as desired and export the image in your chosen format...

Unlimited resources

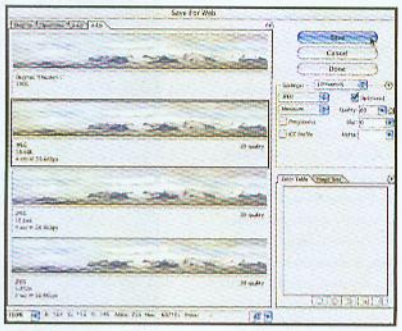
Try to use the Web to its full advantage when working on sites. Unlike print, nothing is set in stone on the Web, and it's often relatively fast, painless and cost-effective to tweak designs and compression levels. It's also the only output medium where you can get almost instant feedback from a number of like-minded people about everything from design to download times, so make use of design forums and community sites.



1 Paste your image into a new *Photoshop* layer, and create a layer mask via the Layers palette. Click the chain to unlink the mask from the layer.



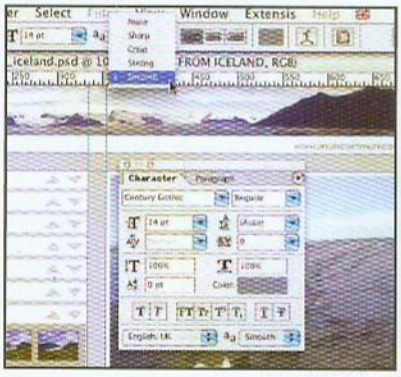
2 Reduce the image's size to remove artefacts, and use the Move tool to get the best composition within the masked area.



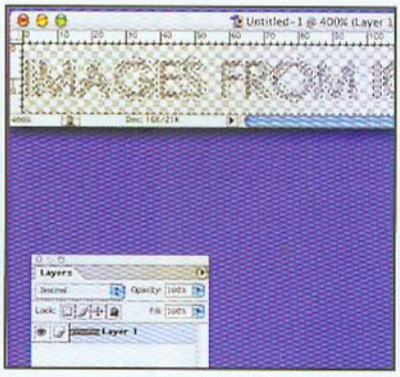
3 Compare JPEG compression levels via Save for Web. Note that because common page elements are cached, you can export them at a larger size.

Part 2: Working with text-based images

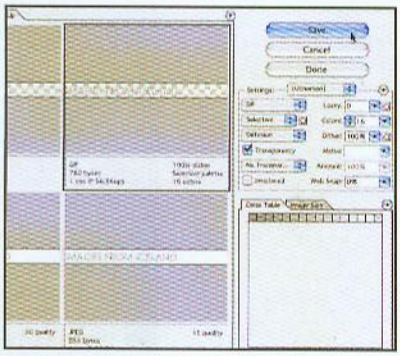
Choose a suitable font, removed background colours and save for the Web...



1 Work with readable fonts and a colour that contrasts with your background. Experiment with anti-aliasing to get the most pleasing result.



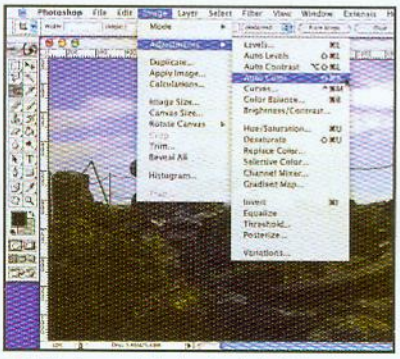
2 Flatten the image and copy the relevant part to a new document. Use the Magic Wand with a Tolerance of 1 to remove the background colour.



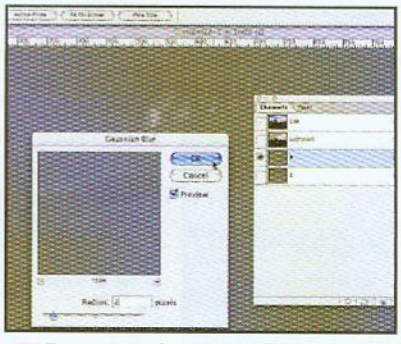
3 Use *Photoshop's* Save for Web dialog to export the image as a GIF with transparency. The technique outlined here works for anything exported as a GIF (logos, display copy, and so on).

Part 3: Retouching photography for the Web

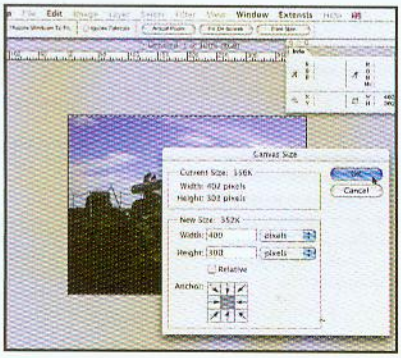
Re-colour and resize your image, remove unwanted information, add detail and export for the Web...



1 Use Image>Adjustments>Auto Colour to improve shots from low- and mid-range digital cameras and scanners.



2 To remove artefacts, convert the image to Lab colour, and run a slight Gaussian Blur over the a and b channels, then convert the image back to RGB.

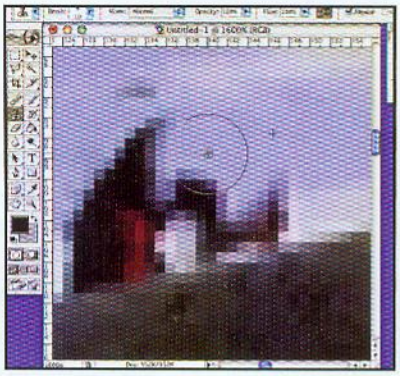


3 Reduce the image's size to two pixels bigger than you need, then use Canvas Size to trim it exactly. This ensures sharp edges.

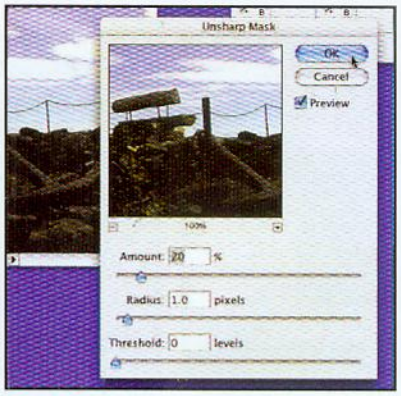
Retouching photography for the Web continued...

Don't use watermarks

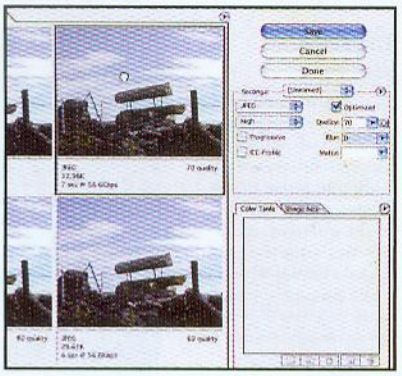
Many print designers get terribly paranoid about putting their work online, and tend to cover images in watermarks. This massively reduces their impact and perceived quality, so don't do it. Bear in mind that a compressed 72dpi JPEG is of no real use to anyone, and is very unlikely to be stolen. And on the rare occasions that such an event occurs, copyright exists on the Web the same as everywhere else, so you can 'have words' with the guilty party.



4 Low-res images have fewer pixels than images for print, so it's easy to use the Clone tool to remove unwanted elements.



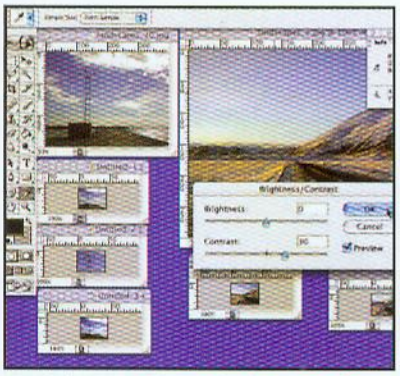
5 Use the Unsharp Mask filter to add back some detail lost in cloning and resizing.



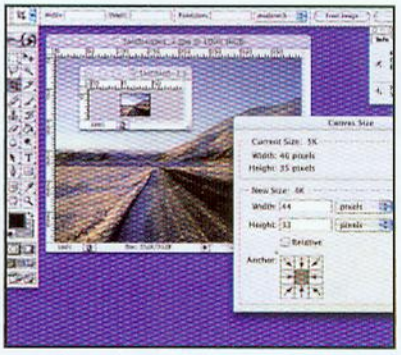
6 Compare various compression levels in Save for Web and use the Hand tool to check particularly important areas of the image.

Part 4: Working with thumbnails

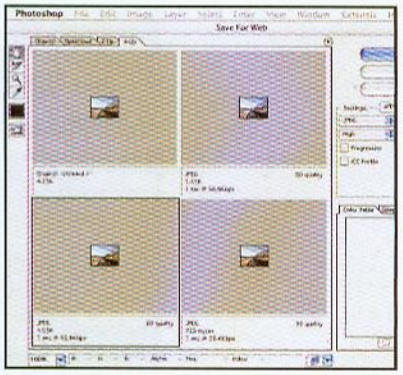
Compare and contrast your shots, resize them and export as JPEGs...



1 Reduce some shots to thumbnail size and compare them against crops to see which works best. Make image adjustments to suit.



2 When reducing the image sizes, do so as per the retouching steps above. Use Unsharp Mask to bring back detail, and increase contrast to add vibrancy.



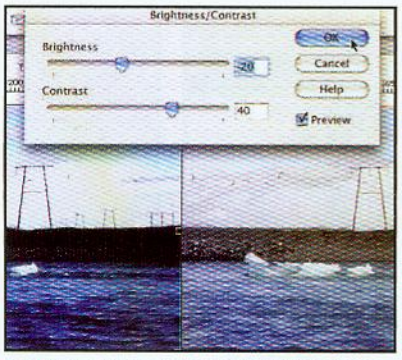
3 Because there are usually a lot of thumbnails, and detail isn't of paramount importance, they can be exported with fairly high JPEG compression.

Part 5: Using Dreamweaver MX 2004 image tools

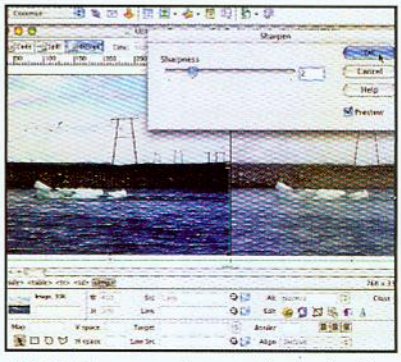
Change the contrast and brightness, then sharpen and crop your images...

Web-safe fonts

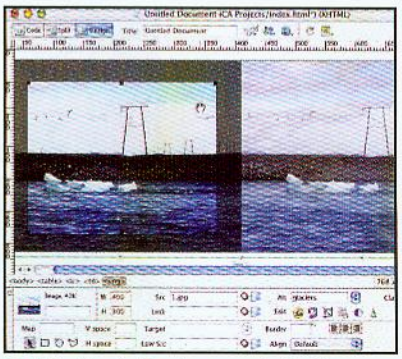
While text can be rendered as an image, you should restrict this to occasional display copy. Setting body copy on the Web as a GIF or JPEG is tempting for some designers, because they feel limited by the handful of Web-safe fonts. However, this is a big no-no, because such text becomes hard to read, cannot be copied or printed, and is a pain to update.



1 Using the Brightness/Contrast Edit button on the Properties panel, it's possible to change an image directly inside *Dreamweaver MX 2004*.



2 Likewise, you can sharpen an image using the relevant tool. Note that Cmnd/Ctrl+Z will undo any edits you've made.



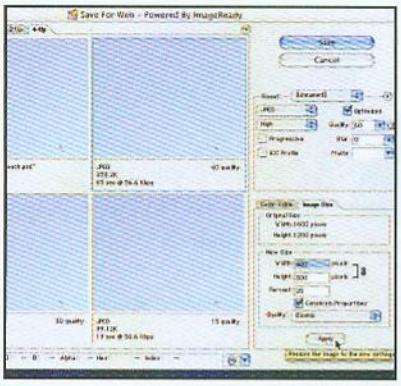
3 The Crop tool works as expected, but be warned that edits are destructive. However, you don't need *Fireworks* installed to use these tools.

Part 6: Using GoLive CS Smart Objects

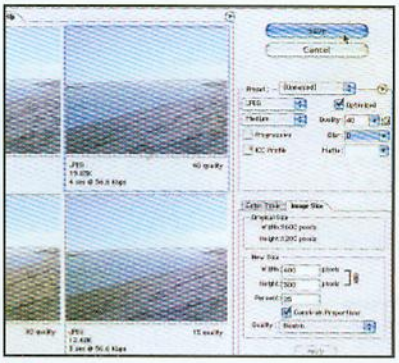
Add a Smart Object, edit the compression, save and crop, resize and resample, make changes and then view the results…

Don't annoy users

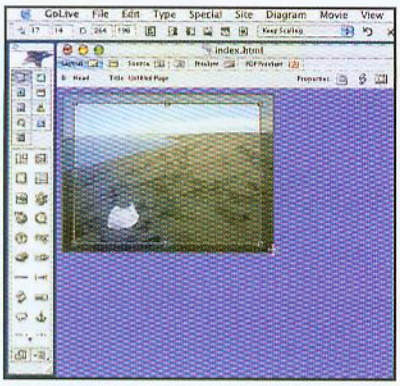
We've seen numerous sites where people have disabled the right-click button in order to try to stop people downloading their images. This is particularly common in portfolio sites built by relative newcomers to the Web. Disabling right-click is a massive usability issue, and a lot of Web users will hate you for doing this – so don't.



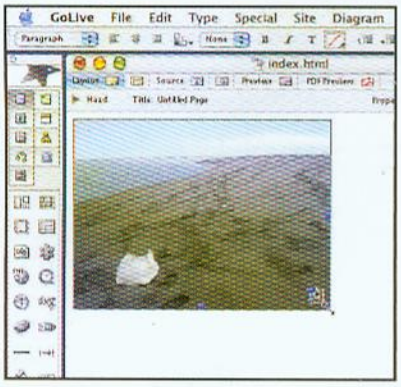
1 Drop a PSD file on to a *GoLive* Web page and the Save for Web dialog appears. Use settings within the Image Size tab to resize the image.



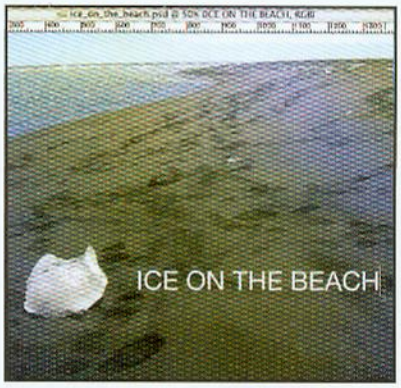
2 To set the compression, use the Preset area to edit the compression settings, just as you would in *Photoshop*. Note that this can be changed later.



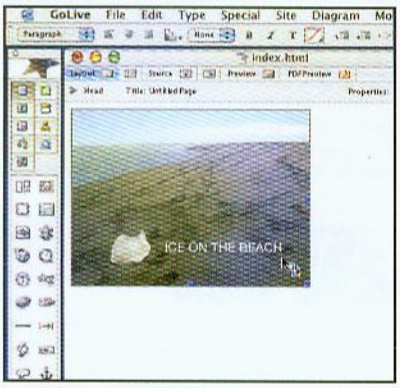
3 You're prompted to save the Web image, and it's added to the page. Select it and use the Inspector palette to crop it.



4 The image can be stretched by grabbing the corners, and resampled via the Settings button. Resampling is done from the original PSD file.



5 Making changes is easy. To show how useful this can be, open your original PSD file in *Photoshop* and add some text. Save the image.



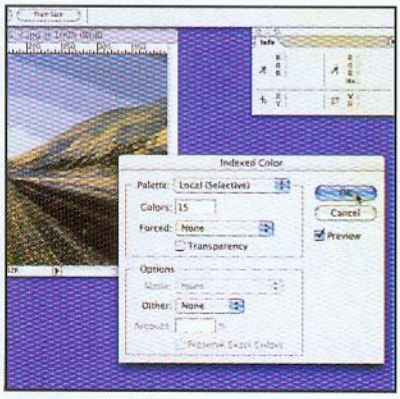
6 Go back to *GoLive* and you'll see that the image has been updated automatically with this new information.

Part 7: Some final tips

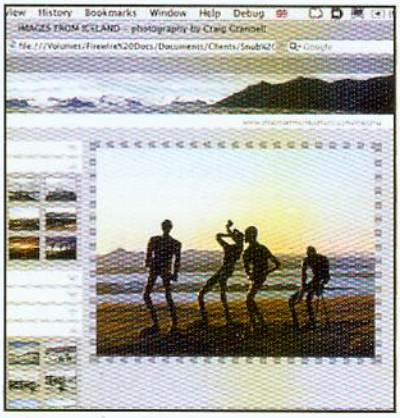
Use special effects, CSS borders and CSS margins…

Background colours

During the 'Working with text-based images' part of this tutorial, we removed the background colour. This is because colours from image editors and Web browsers sometimes don't correlate, even if their readings are identical. Therefore, it's best to create your GIFs on the intended background colour, and then remove it and save the image as a GIF89 (transparent GIF). This enables the Web page background, which may be very slightly different, to display around/through your GIF. However, any anti-aliasing will still look fine, because it was created by using an almost identical background colour.

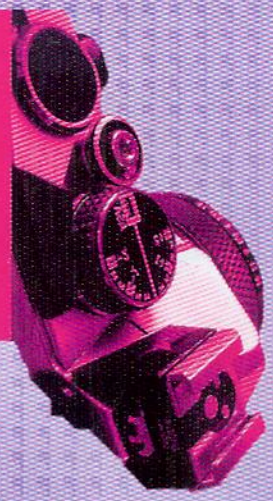


1 Format limitations can work to your advantage: try converting a photo to Indexed Colour using the settings shown for a posterised effect.



2 As mentioned elsewhere, CSS borders provide flexibility. Here, we've reset the main image border to 15px dotted #666666;.

3 Likewise, setting margins in CSS enables rapid layout adjustments. Here, we've doubled the vertical margins for all thumbnails just by changing two characters in our CSS. ca-p



Getting photos right first time

How many times have you come to use a photo in design work only to curse yourself for not being more careful when you took it? There are plenty of ways to avoid this problem: it's simply a case of logical thinking and careful planning...

Designers take photographs in two quite different ways. The first is when you go on holiday / to a wedding / out on the tiles and take photos of tourist attractions / embarrassing family / drunk friends. A few days later you download these images to your computer, where they sit gathering virtual dust. Then one day you find yourself working on a design job which needs some people shots or ornate architectural images. You've left the whole job a bit late and are up against the deadline, but it's okay: you vaguely remember those photos you took a while ago, so you can just use those. Of course, when you eventually find the images, they aren't quite what you remembered, and the chances that they're exactly what you need for the job are slim (however much you might try to convince yourself otherwise). You use them anyway, with the niggling feeling that you didn't do the best job you could have done.

The second way in which designers take photos follows a whole different approach. It starts with

Expertise provided by Jerome Turner. Jerome is a freelance designer and writer. He has worked with clients such as City University, the BBC and Friends of ED and has also written several books on Web and graphic design. He regularly contributes to a number of computer and photography magazines. You can visit Jerome's Website at **[w]** www. jerometurner.co.uk or contact him at **[e]** info@jerometurner.co.uk

the first brief you get for the design project. You realise you'll need photography, so you budget for a photoshoot and – even more importantly – set aside enough time to do justice to the photographic aspects. This involves gathering all the equipment, models and materials, and finding a location. Don't expect the shoot to be a quick process, because you'll need to cover different angles, lighting set-ups, and so on – things that you can't necessarily plan for. Then, at the end of it all, you can download the images to your computer, safe in the knowledge that these are the best photos you could possibly have taken for the job.

So, which approach do you think is better?

Early decisions

Of course, the above two scenarios are extremes, but they do illustrate one of the fundamental points regarding any type of design work (regardless of whether it includes photography): plan your project from the start and keep your target in mind throughout.

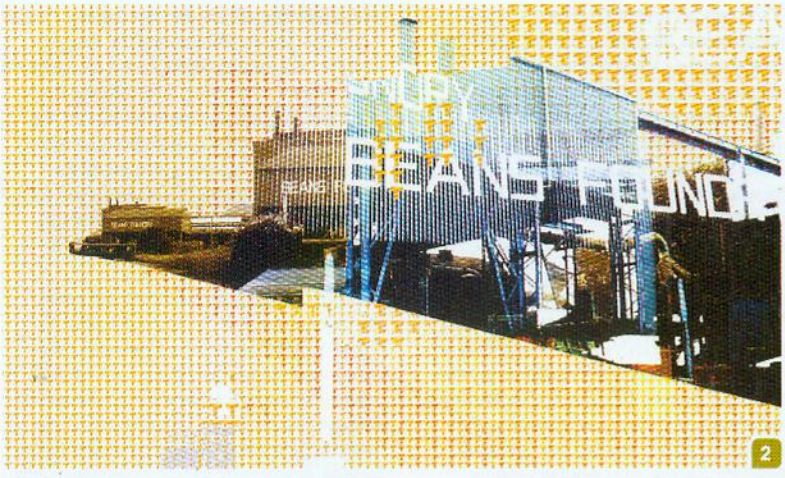
From the first moment you see the brief, you'll start to get ideas about how to approach it. If you envisage photography working its way into your project *at any stage*, you need to make a few early decisions about equipment, budget, timing, resources, locations, models and the use of other subjects or objects. Will you need any extra equipment, such as tripods, extra cameras, special film, lights? Do you know where you can hire these things? Once they've been hired, will you know how to use them? If not, would it be better to outsource the work to someone who does? Does the budget allow for all this hiring? Do you need to recce locations to shoot and do you know exactly what you're looking for if you do?

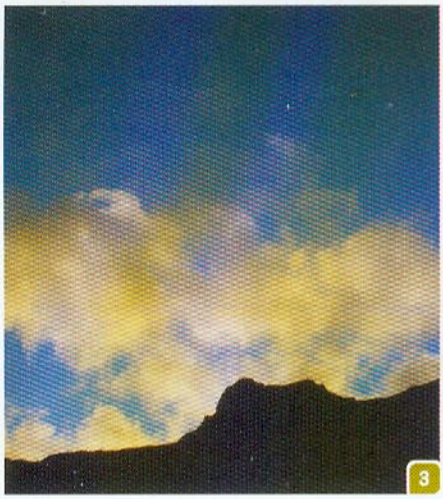
The answers to all of these questions will, of course, depend on the scale of the project, and various elements will influence your decisions. For example, the budget will determine how many lights you can afford to hire; the timescale may mean you can't spend a full day casting models; and the client may have already organised the location, leaving you with more time for other considerations.

Bear in mind that photography won't always be appropriate for your project. You shouldn't feel forced into using photographic images just because it's the usual approach to the kind of job on which you're working. For example, if you're creating an advert for a product and need to show it off above everything else, perhaps an illustration would be less 'in-your-face' and enable you to more accurately reflect the product's identity.

Your early design decisions should really include a sketch or layout plan showing where the photography appears, and exactly how it is going to be used. So if you need to shoot a model for a Website's splash page, you should plan exactly what poses you want, and what the background location will be. Also, keep lighting in mind at this stage. If the Web page has a flat blue background, why not shoot against a blue background, such as a curtain? Then, when you put the image online, the light reflected on the subject will be in context, so you won't need to do too much *Photoshop* correction.

If models, equipment, helping hands, and so on are all in place for the day of the shoot, everything should work out nicely. You'll refer to your paper plans, move everything into position and hit the shutter – easy.





1. This scene was taken twice with different exposures, because I knew it was mostly in the shade and that good results couldn't be guaranteed with one shot. The picture on the left was taken with a camera exposure setting of 1.50, resulting in a 1/15 sec exposure. On the right, the exposure was set to -2.10, giving a 1/170 sec exposure.

2. In this illustration, I wanted images of large buildings, possibly with an industrial feel, so I took a number of photos of a local foundry. By photographing from various angles, I was able to compile a set of pictures which could be used in a variety of ways.

3. This shows how you can lower the camera's exposure setting in order to pull out details, such as these clouds. The exposure was only 1/320 sec – very fast indeed.

4. Photographing objects against flat backgrounds like this helps make them easier to cut out in *Photoshop*. Although there are other objects on the table, you can just select the brochures using the Magnetic Lasso tool. The brochures are then pasted back onto a dark blue layer.

5. If you absolutely must take photographs through windows, at least make sure the glass is clean. You might imagine that anything so close to the camera won't show up when you're focussing on a more distant object, but it can still create blurry marks on your image.

6. Mini tripods like this are very useful for fixing the camera for a long exposure – as long as you have a wall or surface to balance them on.

Lighting – the way

Lighting decisions really do depend on the subject's needs and, of course, the budget. If you're working on a shoestring, it might be worth explaining to the client that with a little more money to hire lights and relevant equipment, the results will show. It really depends on how much emphasis is being placed on the photographic aspect in your project.

If you want to use lighting to cast shadows or direct light in from one side, keep your subject indoors so you can control the light sources. The cheapest option is to use a window because the light is natural and directional. A household lamp can also be used, but it'll give a yellow tint which would need to be corrected later. If you hire lights, they'll usually provide natural 'blue' light and may come with coloured plastic sheets (gels) for tinting. In a typical 'model' shoot, you would use: a 'key' light facing forward (from the left) to pick out the subject; a 'fill' light which faces towards the camera (on the right) but bounces off a large reflector to balance overall tone and lighten hard shadows; a 'back' light which faces the camera (from left) but is behind the model – this helps to pick out the subject from the background.

However, you may just require all-round lighting (that is, not directional), which simply records the subject matter without showing hard shadow or highlights. In this case, take the subject outside.

Camera flash

The above lighting scenarios only apply if you're using a camera without a flash, or have turned off the flash. Bear in mind that if the light source isn't bright, the camera should be set on a tripod to avoid camera shake, and the photo should be taken using a timer function or cable release.

Using camera flash is a different story. If you're looking for quick, short-range lighting, use your camera's built-in flash. In most cases, there will be an auto flash mode, which adjusts shutter speed and exposure according to how much light the flash provides, combined with natural light sources. If you can set a 'forced' flash which flashes 'maximum' regardless of other light sources, this can prove useful for ensuring >

10 idiot checks

You'll kick yourself if you make any of these silly mistakes...

1. If you're using a film camera, double-check that the film has wound on.
2. Check that your lens cap is off. This is easy to miss if your viewfinder doesn't show a 'lens view'.
3. Make sure your lens is clean. Dust, rain, hairs and other particles of dirt might not show up until you view the image later.
4. If possible, use a red-eye flash setting whenever you're shooting subjects' faces.
5. Know the range of your flash – most will not light up a vast night-time landscape!
6. Look out for objects or people accidentally creeping into your shot.
7. Lock photos on your camera (if possible) to avoid them being erased.
8. Make sure batteries are fully charged (camera *and* flash) before setting out.
9. Don't use flash if photographing through a window, because it'll just reflect off the glass. Use a long exposure instead.
10. Don't rely on your LCD screen to view images – it won't accurately show colours, marks, and so on.

More advice

Our sister magazines *Digital Camera Magazine* and *Digital Photography Techniques* are packed with more advice and information every issue, including tips on photographic techniques for specific purposes. In addition, *Digital Camera Shopper* is an invaluable guide to buying digital photography gear of all kinds. Look for them at your local newsagent or wherever fine magazines are sold!

foreground subjects are well-lit against backgrounds. If you're shooting outside with the sun behind the subject (as a backlight), you can use forced flash as the key light. Using a reflector, such as a white board, or a more professional collapsible disc (see [w] www.lastolite.com/reflectors.html) at an angle, you can reflect flash onto the side of your subject.

Knobs and buttons

Read the manual. You may *think* you know your way around every function of your camera, but there's always some useful switch or setting that's overlooked.

'White balance' settings are used to tell the camera how to read ambient light and thus set colours according to how 'white' is read in your image. So, typically, you might have an 'inside' setting and an 'outside' setting, along with others for over-clouded and different types and colours of lighting (strip lights, halogen lights, household lamps, and so on). If in doubt, practise using different settings.

Don't rely on your LCD screen's colour representation; it's hard to see the colours properly unless you open the images in *Photoshop*. Of course, if you're testing like this, do so before the big shoot day. When it comes to the shoot, if you're still unsure, double-up on each photo, retaking with a different setting, and remember that in *Photoshop CS* you can use Match Colour to match colours in one image to another's.

Use optical zoom rather than digital zoom. Optical zoom means using a lens to bring the subject closer, so the image quality remains high; while a digital zoom is the equivalent of zooming into an image in *Photoshop*. In other words, you're not actually recording any more pixels. Alternatively, just walk closer to the subject! Your ideal situation is to be close enough so that you don't need to zoom in at all to frame what you need.

Exposure settings can also be used to great effect. In automatic mode, most cameras will balance this, but sometimes you'll want to change the exposure manually. For example, in a photo of a landscape, you might want to emphasise the sun shining through the clouds – an auto setting will balance the image in favour of the ground detail, so the clouds won't show properly. However, if you change the exposure setting to something like -2.1, the image will be darker all over: the land will be in silhouette but the sky will show all the necessary cloud detail. In this case, you could then take another image at a 0.0 (normal) exposure and paste the sky from the first image onto the land in the second.

If you're going for something that's a bit out there and has so far been untested, it's not a bad idea to set aside some play time. Give yourself a few hours when you haven't got all your gear and models around (so that it doesn't eat into the budget) and try a few different set-ups, whether that relates to the lighting, positioning, exposure settings, white balance, or whatever. If you have a timer on your camera, you can stick it on a tripod and then stand in as the model.

Shooting on location can be fun – or a nightmare. When you're in a studio, you have control over lighting, subjects and backdrops

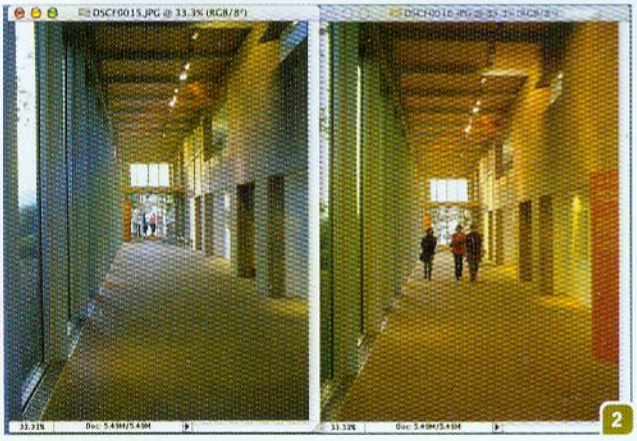
(typically flat sheets of fabric or paper). Outside, the main problem will be the weather, so try to get a rough forecast for the day and if you anticipate clouds or rain, plan around this or allow more time. If you don't have the luxury of flexibility, you can always 'warm up' the image in *Photoshop*.

On a location shoot, you'll also need a tripod. Even if you think there'll be enough available light to avoid a slow shutter speed, this allows you to set up the camera at the required position, then re-position subjects, lights and other equipment as necessary. A lightweight tripod will be fine, or if you really need to shoot quickly on the move, use a monopod – a collapsible leg which is lighter and faster to set up. If you're really pushed for space in your kit bag and know you'll be able to rest it on a wall, table, chair, or something else, you could even opt for a mini-tripod.

Keeping source images

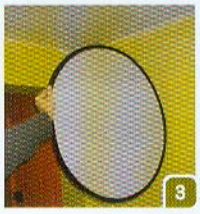
In this article, we've mainly talked about taking photos with the sole intention of using them on a specific project, but if you keep hold of them, there's a good chance they'll come in useful for future projects. Decide on the best way to categorise and file your images, whether it's by date or subject matter or client, and then store them in a 'source images' folder either on your hard drive or burnt to CD. *Photoshop CS*'s File Browser system makes it easy to navigate your way around these folders, so you should always be able to find exactly what you're looking for.

While it's useful to keep your own image library, it doesn't really compare to preparing your own tailor-made photography for each individual job. It can sometimes be hard convincing clients that a personalised photoshoot will make all the difference to their project, but if they really want the best from their final product, they'll appreciate that every element counts. And the more care you take in organising and running photoshoots, the easier they'll become – and the happier you, and all your clients, will be. CAP

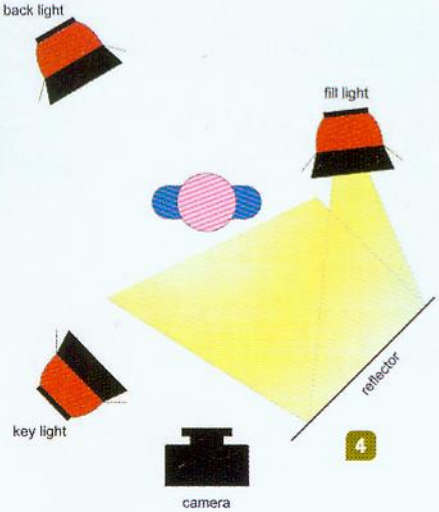


1. *Photoshop CS* comes with a handy, detailed File Browser. This enables you to organise your images in folders for reference and also to find information about the photo, such as how it was taken and the Exif values.

2. The main light source here was from the window/wall on the left, but there were also internal lights, so I tried photographing several times with various white balance settings. The image on the left more truly depicts the actual lighting and colour cast.



3. Reflectors like this collapsible hand-held model by Portaflash can help make the best use of existing light. They usually come with gold and silver reflective covers (not shown here).



4. If your budget allows, and it suits the project, hire professional lights to make sure you have full control over lighting. Here we see a key light picking out the subject, a fill light bouncing off a reflector to spread ambient light, and a back light used to pick the subject from the background.

Project-specific tips

Practical tips for specific types of photoshoots...

When taking photos for 'joiner' images, as shown here, make sure you allow enough overlap at the edges of each picture. The Photomerge function in the Automate list in *Photoshop CS* makes the job much easier.

'Joiner' panorama photography

Make sure you include enough overlap between images and stay rooted to the same spot, so the camera simply rotates with you.

Portraiture

Don't mix different coloured light sources, such as from a window and a household lamp. Where possible, use a key, fill and back light.

Indoor photography

Use a reflector to bounce light onto the subject. If you can't afford a professional one, a board covered in tin foil or white paper will do the job.

On location

Be aware of the position of the sun (don't face into it) and clouds.

Action photography

Make sure you're comfortable and set up properly so you don't miss that split-second moment.

Illustrative photography

Photograph your subject against a flat background which contrasts with the edges of the object. For example, use a black background for a white object.

Photography over scanning

In some cases, you're better off photographing an illustration or texture rather than scanning it. If nothing else, it's faster.

This photo of an illustration isn't very high quality, but you can use the Stamp Filter in *Photoshop* to render it in black-and-white and then import it into a print design. A perfect example of how a camera can do a scanner's job.

Photoshop plug-ins

Increase your creative abilities! With these plug-ins you'll produce effects you might never have imagined possible...

Few of us are lucky enough to have a constant flow of brilliant ideas, enabling us to create vibrant and unique images on demand, every time. What's worse, though, is when you *do* have the ideas but just can't find the tools to make them a reality. This issue we've rounded up a wide-ranging selection of tools for creating the unusual and out-of-the-ordinary. Need to cut a picture into jigsaw-puzzle bits? Need to create fire, smoke, or fur? Desperate to add clouds or trees that weren't there, or old-fashioned film grain to a pristine digital image? Then you need one of these extraordinary plug-ins...

SERIES 2

Company **AutoFX** Web **www.autofx.com** Purpose **Creating better-than-life images** Host **Photoshop** Price **$149**

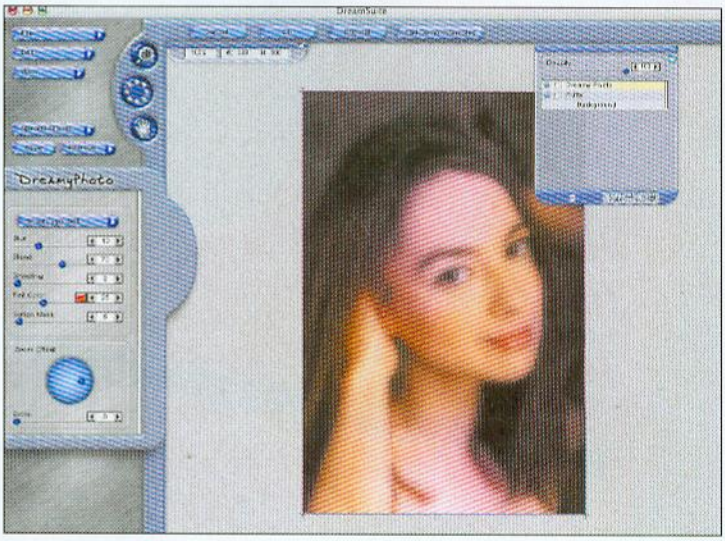
AutoFX produces some of the best *Photoshop* plug-ins on the market. The company has taken the approach of designing its products as *Photoshop* plug-ins as well as stand-alone applications. Series 2, like all AutoFX filters, has been designed with a user-friendly interface which is intuitive and quick to learn. When the filter opens, it fills the screen, which is a departure from the standard small dialog box you get with most filters. Adjustments for each of the filters within this set are accessible through the menu on the left, with effects being rendered in the preview screen in the main area of the interface.

The whole set consists of 14 different filters, including the excellent Dreamy Photo, which is perfect for creating romantic effects like those used by wedding portrait photographers. This effect can also work well when applied to landscape scenes: by adjusting the blur and contrast settings, you can create images with a fantasy feel.

The other filters within the set create more abstract effects, from Mesh, which cuts and weaves the image, to Puzzle Pieces, which cuts the picture into jigsaw bits. Once you've applied these cutting effects, you're able to select each piece and move them around as separate entities, with each effect being fully adjustable. The ability to save down your settings for use with other images is a nice finishing touch.

This is a varied set of filters, from the image enhancement of Dreamy Photo to the framing abilities of PhotoPress.

VERDICT **4/5**



EYE CANDY 4000

Company **Alienskin** Web **www.alienskin.com** Purpose **Creating textured effects** Host **Photoshop** Price **$169**

EyeCandy 4000 gives you the ability to create natural looking effects, such as fire, fur, smoke, glass and marble, all of which can be overlaid onto your image. Although based in *Photoshop*, this plug-in is perfect for creating basic texture effects for use in 3D modelling and animation.

The fur filter, as its name suggests, applies furry textures. This effect transfers as a static image, but can also work well in still 3D scenes. The fire and smoke filter can help you to add a touch of drama to your images by enabling you to create fire effects from scratch to place on transparent layers. These can then be customised to increase height, direction and blur, which can then be overlaid onto your image.

Where this filter really excels is in creating textures such as wood or marble for use within existing pictures rather than for general image enhancement.

The filters all have plenty of scope for adjustment, offering various end results and ease of use when it comes to adjusting and applying the settings. They can also be a lot of fun to use. It's a bit of a pity, then, that the quality of the finished effects doesn't quite make the grade when compared to some other subject-specific filters on the market. For the price and the variety of effects available, it's worth a look, but don't expect photorealistic results.

VERDICT **3.5/5**

DIGITAL ROC 1.2.1

Company **Kodak** Web **www.asf.com** Purpose **Colour restoration**
Host **Photoshop** Price **$49**

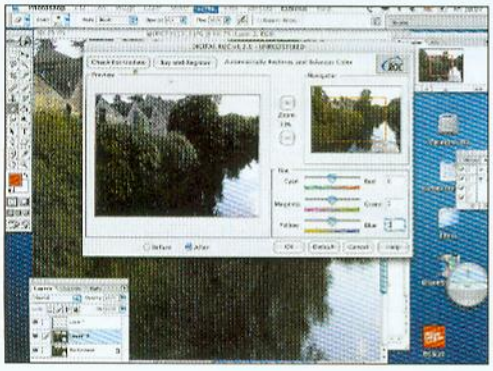
Colour adjustment is a skill, and being able to alter colour correctly is generally not an easy process, even with well-calibrated monitors. Although most of us can look at a picture and tell if the colours are slightly, or massively, out, it takes someone with a real eye for colour to get them looking great.

Digital ROC gives you complete control over the adjustment of your image's colour with a variety of sliders. Like GEM (also on this page), ROC automatically restores and balances your image's colour, then enables you to fine-tune its settings manually using simple slider controls. As a one-use filter it works effectively, but, as with all colour adjustment tools, you'll need to be careful not to over-adjust the settings. The automatic settings enhance colour quality well, so there's little need for masses of manual adjustment.

This filter is effective, but some of the finer details in the lower contrast areas of an image can easily be lost, especially when it balances out the colours to create a more dynamic picture.

Digital ROC 1.2.1 is a fast and effective filter for colour adjustment. It works well with images whose colour is way off the mark, helping to enhance and balance the effects of lighting sources and indoor shoots.

VERDICT **4/5**



55mm

Company **Digital Film Tools** Web **www.digitalfilmtools.com**
Purpose **Traditional photographic filter effects** Host **Photoshop** Price **$150**

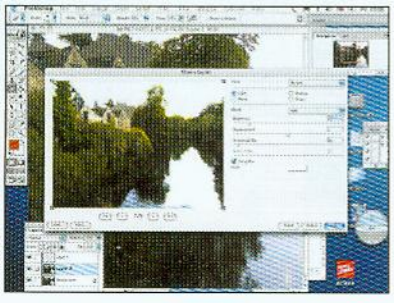
This filter recreates effects which are commonly found in traditional 35mm photography, such as polarising and gradient as well as different photographic styles such as night vision and infra red. The effects cover a large range of processes, so you should find something here which makes 55mm the perfect addition to your digital darkroom.

The interface screen for each of the 36 filters is pretty simple, giving you the standard slider adjustment, preview and area selection options which enable you to produce stunning effects quickly. The package includes Light!, which can quickly turn a photograph taken on a dull day into one that has the elements of lighting and contrast you would associate with a bright sunny day.

One of the most effective filters here is Polariser, commonly used for landscape photography. The effects are spot-on, with easy and precise adjustment options. There are also a couple of other filters which are definitely worth trying out. Night Vision turns your picture a vivid green and mimics well the look of what you'd expect to see on undercover night manoeuvres with the military. The Infra Red filter is slightly more practical and can create some stunning unreal images.

This is an excellent filter set in which you'll find at least one filter you'll come to rely on for practical use.

VERDICT **5/5**



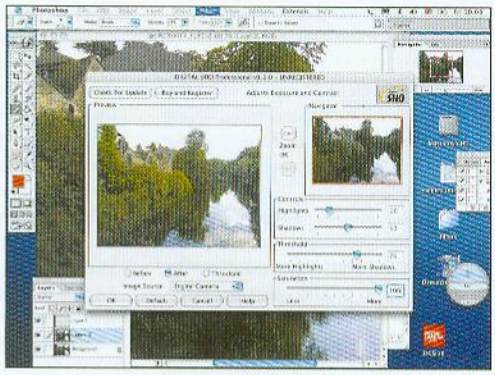
DIGITAL SHO PROFESSIONAL 1.0.0

Company **Kodak** Web **www.asf.com** Purpose **Digital image enhancement**
Host **Photoshop** Price **$99**

This is a superb filter for adjusting exposure and contrast. As image enhancement filters go, it's near perfect. Initial results level out an image's exposure well, enhancing details which would otherwise be lost and helping to enhance the lower contrast areas. Scanned images have different qualities from digital images, but the filter enables you to select your source file type, then you can accurately adjust the highlight, shadows, threshold and saturation using sliders.

Unlike some other exposure/contrast applications, SHO Professional is able to calculate the different exposures extremely well throughout the image, ensuring that skies don't become bleached out and darker areas don't get lost in blackouts. Instead, it manages to equalise the overall image and bring back detail which looked to be almost lost. The end result is as close as you'll get to reproducing a perfectly shot photograph.

SHO Professional is an excellent, simple-to-use filter which can quickly enhance the exposure and contrast of any scanned or digital image. The controls give you complete control over all aspects of image enhancement, so if you're serious about getting professional-looking pictures, this is well worth a look.



VERDICT **5/5**

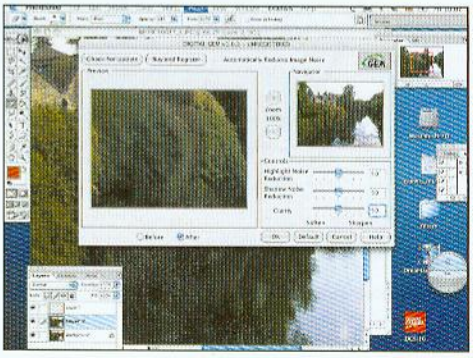
DIGITAL GEM 1.0.2

Company **Kodak** Web **www.afs.com** Purpose **Digital Image enhancement**
Host **Photoshop** Price **$79**

Digital Gem is a one-shot filter designed purely to help reduce noise from your digital pictures using three points for adjustment. Like most job-specific filters, it has a simple interface, with the main preview screen enabling you to quickly see the before-and-after effects of the filters. Located on the right of the screen is a quick navigation control similar to the one found in *Photoshop*, which works by enabling you to move a red square around a thumbnail image to the area of the picture you want to check.

The three adjustment sliders enable you to change the effect on Highlight Noise Reduction, Shadow Noise Reduction and the overall Clarity of the image. As with most sharpening tools, careful adjustment is needed so as not to lose the image's finer definition, colour range and tone.

As a noise reduction filter for your digital images, Digital Gem works excellently – the level adjustment sliders enable you to correct the different contrasted areas of your images quickly and effectively.



VERDICT **4/5**

GRAIN SURGERY 2

Company **Visual Infinity** Web **www.visinf.com** Purpose **Reproducing the effects of grain** Host **Photoshop** Price **$179**

One of the things that people used to get passionate about when working with traditional photography was the effect that different film-stocks had on image grain. Many photographers insisted on using only one brand of film in preference to the many others on the market, especially when using black-and-white film.

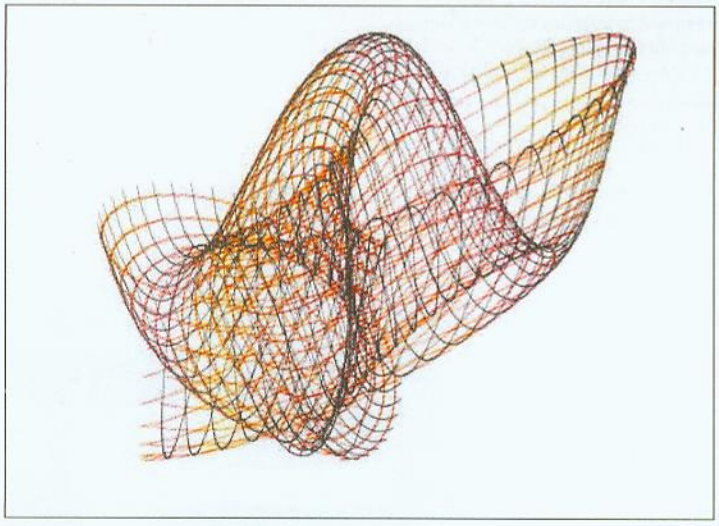
Grain Surgery 2 includes preset grain settings which replicate many of the most popular 35mm film types and digitally reproduce their grain quality. It may seem a bit odd wanting to add grain to a perfectly produced digital image, but this effect can help to enhance the emotion within an image in a similar way to adding a romantic blur to landscapes or wedding portrait shots. If you've recently changed from 35mm photography to digital and are finding the digital format just a little bit too clean-cut for your needs, then Grain Surgery will help you to replicate the prints of old.

As well as the preset film grain settings available to you, you can specify your own settings by adding colour tints and enlarging the pixel sizes to create some colourful and interesting personalised effects. You also have the option to match, remove and sample grain, which adds to the overall versatility of the filter.

VERDICT **4/5**

SINE DOTS II SHADE FILTER

Company **DragonFly** Web **www.philipp-spoeth.de**
Purpose **Creating abstract wave illustrations** Host **Photoshop** Price **Free**



An interesting plug-in which enables you to create mathematical-style sine wave images. Originally launched a few years ago as Sine Dots, this latest version includes a few more advanced features which enable you to specify colour and lines, and adjust angles and repetition of lines.

Interesting illustrations can be created from scratch, and these can then be used effectively to add detailed interest to any blank space. The interface is simple to use, and the results are rendered on a layer within *Photoshop* for use in your projects.

This filter won't instantly strike you as essential, but it'll soon hypnotise you with its results. After a while, you'll start to see its full potential for producing abstract patterns and it'll become a necessary part of your working style.

Sine Dots II is a slightly unusual filter, in that it produces effects more commonly found in applications such as *Illustrator*. With practice, it's a stunning plug-in which produces excellent and interesting results.

VERDICT **5/5**

VERDANT

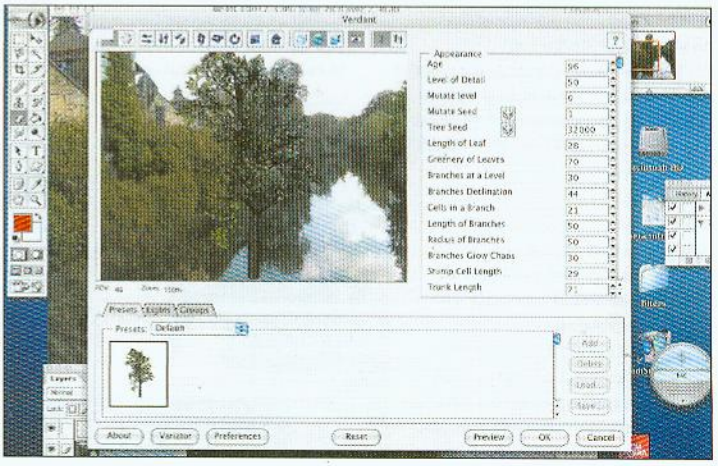
Company **Digital Element** Web **www.digi-element.com**
Purpose **Plant creator** Host **Photoshop** Price **$179**

Photoshop opens many possibilities for adding elements and manipulating your images to be better than life, such as improving skies and adding trees and shrubs to liven up dull landscapes. Verdant goes further. It's a powerful plant creator which enables you to choose a plant type, set a few variables such as height, leaves, branches, and then leave it to render that plant into your image or on a separate layer in *Photoshop*.

Digital Element has looked carefully at the end use of this filter, so that all plants created within the package can be rotated to give either a front, side, top or even underside view. This should meet all your wildest tree- and plant-growing needs.

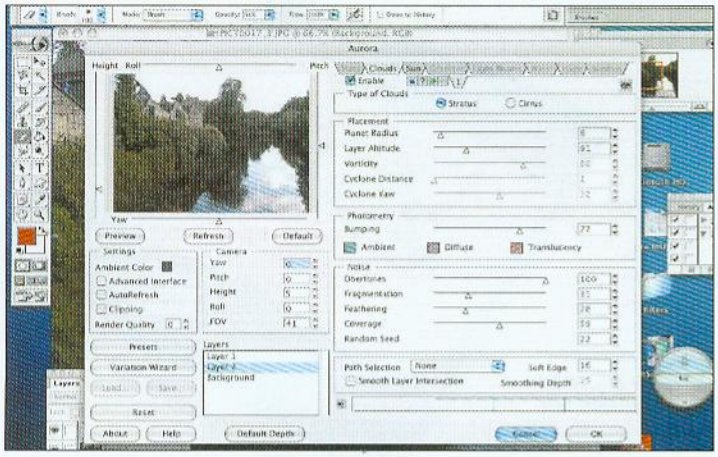
This plug-in is ideal if you need to create a landscape for architectural plans or landscape planning. The plants are created onto transparent layers, so manipulating the rendered result is as simple as using any normal layer. This is an extremely powerful plug-in, and although the trees are not quite photorealistic, the variety of plants and customised functions for creating your perfect tree make this a useful tool if you need to populate an image with plants.

VERDICT **4/5**



AURORA 2

Company **Digital Element** Web **www.digi-element.com**
Purpose **Creating natural elements** Host **Photoshop** Price **$179**



Aurora 2 is an interesting plug-in. It enables you to create natural elements which might otherwise be missing from your images. Similar in many ways to scene-creation software, it gives you the ability to create skies, clouds, water, sun, moon, stars and lighting for outdoor scenes.

The interface enables you to create each element and specify the exact preferences for each. For example, if you need to create clouds, you select the Clouds tab, then you specify the size and colour intensity you're after. You can even map the cloud to a path you've prepared. This is then created on a layer in *Photoshop*, which can then be worked into your image. The results are photo-realistic, making this an invaluable tool for creating natural effects.

The interface gives you quick access to all aspects of the filter through a top tab system, so you can flick between each of the natural elements quickly and enable/disable the ones you need. Adjustments are made using standard sliders and there's a refresh button next to the small preview screen so you can see the effects your adjustments are having. This is an excellent plug-in which will certainly give your images the edge.

VERDICT **5/5**

AUTO EYE

Company **AutoFX** Web **www.autofx.com**
Purpose **Image enhancement** Host **Photoshop** Price **$129**

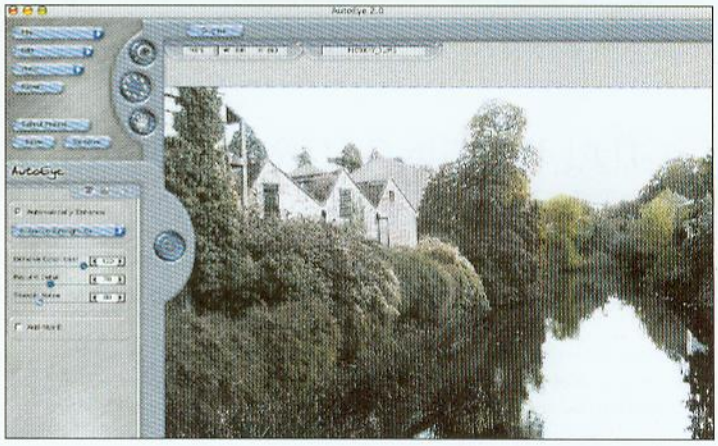
Auto Eye is your one-stop image enhancement plug-in for *Photoshop*, with a set of tools which enable you to improve the quality of almost any image. Its powerful toolset allows you to quickly adjust colour balance, sharpness and image vibrancy without having to use *Photoshop's* complex curves and histogram functions.

Like all AutoFX's plug-ins, Auto Eye will run either within *Photoshop* or as a standalone application. The preview screen renders the effects of the filters as you go, and the filter's Layers palette enables you to jump back and forth between layers to delete or change them without having to revert to the original.

This plug-in will help you to increase workflow by offering quick image enhancement. You can also improve the overall image quality of scanned and generic digital images with the quick click of a button, making them instantly ready for printing. The interface is user-friendly and, once you've configured a combination of effects, you can save presets of the effects which you find particularly useful.

This is a perfect filter for image enhancement, saving you from having to use *Photoshop's* more tricky functions.

VERDICT **5/5**



EUPHORIA

Company **DigiEffects** Web **www.Digieffects.com** Purpose **Particle-based effects** Host **Photoshop** Price **$195**

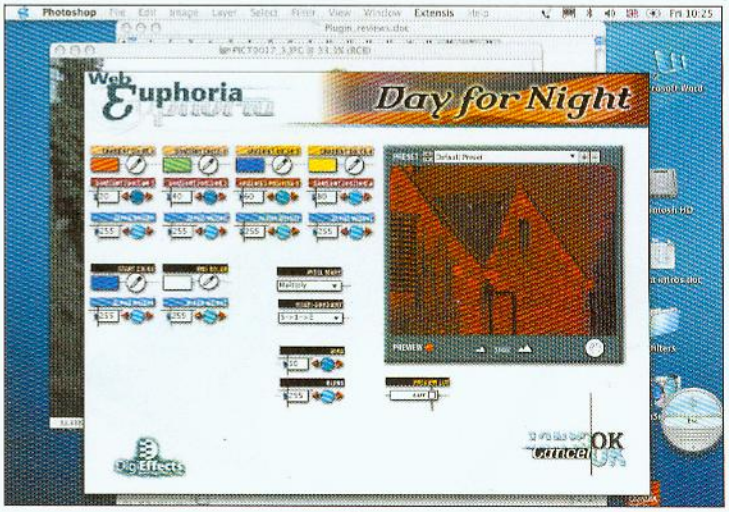
DigiEffects' Euphoria is a set of plug-ins that enable you to create some interesting additions for your images: particle-based effects such as fire, smoke and rain. These are notoriously tricky to produce well, but turbulence processing enables you to generate more realistic effects without having to render effects in a 3D application.

In total, there are 19 different effects to choose from in this set of plug-ins. Add a visual object effect such as laser, rainfall or a fog bank, or recreate actual visual effects such as aged film and DayForNight (pictured right). These interesting visual effects are fully adjustable, giving you access to over 300 presets in the package as well as offering you the ability to save your own creations.

Although the filters have a variety of uses, they're probably best suited to designers working on fantasy images who want to create bizarre effects. The visual harmoniser creates some very interesting results which would work well in all manner of illustrations, whereas the rain and fog effects produce some excellent and practical ways of adding environmental elements to your images.

Euphoria is a very versatile set of plug-ins with completely customisable filters – it should suit most people's needs for creating something a little bit different. The huge number of options for some of the filters do become a little confusing, but it's no bad thing to have so many effects to choose from.

VERDICT **4/5**



BOOK REVIEWS

PHOTOSHOP CS DOWN AND DIRTY TRICKS

Author **Scott Kelby** Publisher **New Riders** Price **£30.99**
ISBN **0-7357-1353-7** Web **www.scottkelbybooks.com**

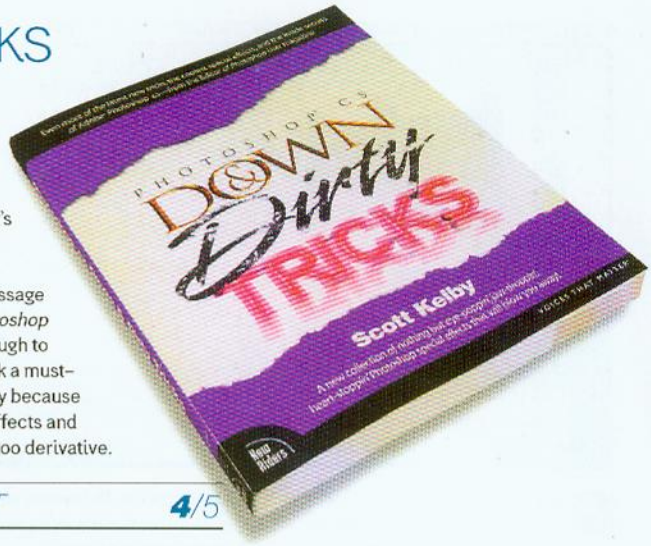
This is a tutorial book for those wishing to emulate popular corporate styles with a minimum of time and effort. The focus is on new *Photoshop* techniques rather than exploring the potential of Adobe's *Creative Suite* in general, but new features are covered where relevant.

Although *Down And Dirty Tricks* is billed as a book for intermediate to advanced users, it has the feel of a beginner's guide: the pages are uncluttered, the layout is simple and consistent, and the text is straightforward. The tutorials are clear enough to be followed by a beginner, but have enough detail to raise the odd professional eyebrow.

Each chapter contains a group of related tutorials. For example, Photographic Techniques has 'The Blowout Fashion Look' and 'From Photo To Oil Painting', then later we have type effects, some 3D work and logos. Before a finale of standard advertising techniques such as the 'Page Curl', the penultimate section takes a look at portfolio presentation techniques.

Scott Kelby's obvious experience in getting his message across to *Photoshop* users isn't enough to make this book a must-buy, principally because its choice of effects and techniques is too derivative.

VERDICT **4**/5



DIGITAL IMAGING FOR PHOTOGRAPHERS

Authors **Adrian Davies & Phil Fennessy** Publisher **Focal Press**
Price **£22.25** ISBN **0-240-51590-0** Web **www.focalpress.com**

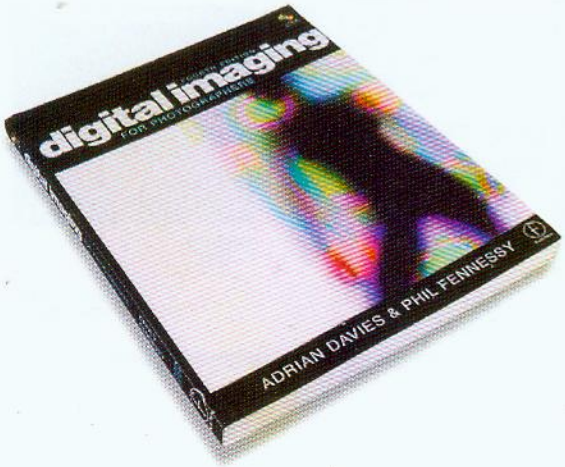
Digital Imaging For Photographers packs a lot of information into a small space while remaining lively and understandable. Even a casual browse of this book will leave you better equipped to make decisions about image capture, storage and compression.

The central premise is simple: by developing an understanding of the ideas which underpin digital-imaging technology, we'll be more likely to get the best out of the digital cameras, scanners and software we all take for granted. This isn't for dummies.

Opening the book, we get a run-down of the terminology and hardware underpinning image-capture itself. Subsequently, we're treated to first-rate explanations of colour management, image compression and practical image output, all from the ground up.

First published in 2001, this title has fallen a little behind the times, which is a great shame. This isn't as bad as it might be, because most of the valuable information is confined to basic principles which remain relatively constant, but this isn't so true of the chapter dealing with *Photoshop 5.5*.

VERDICT **3.5**/5



TEACH YOURSELF ADOBE PHOTOSHOP CS IN 24 HOURS

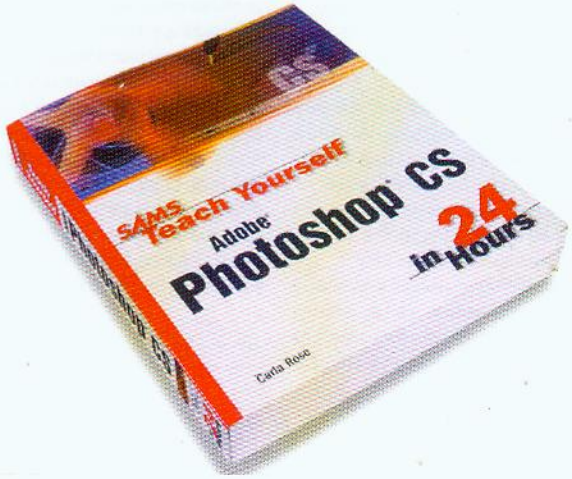
Author **Carla Rose** Publisher **Sams** Price **£17.99**
ISBN **0-672-32592-6** Web **www.samspublishing.com**

While it's aimed at beginners, *Teach Yourself Photoshop CS* contains enough information to act as a quick reference text for more advanced users. Unfortunately, this book is let down by a shortage of colour illustrations, an essential component when dealing with applications like *Photoshop*.

From the basic concerns of interface and selection through to the sticky problems of compositing and retouching, the coverage is level-headed and easy to follow. Once the basics are out of the way, the main sections of the book focus on filters, text, photo repair, print and Web publishing. There are plenty of work-along examples and each chapter ends on a set of test exercises.

If you're a total novice, although the text is a model of clarity, the repeated need to skip to the 16-page colour section in the middle of the book for a clear example of what you're reading would do nothing for your concentration. Where this book could be useful is as a reference for someone past the early learning stage who still needs the occasional reminder.

VERDICT **3.5**/5



SECRETS OF THE DIGITAL DARKROOM

Author **Peter Cope** Publisher **Ilex Press** Price **£19.95**
ISBN **1-904705-07-3** Web **www.ilex-press.com**

This book is an ideal introduction to the world of digital imaging for those with a background in traditional photography. From image capture to editing, the style is light but the detail is enough to point your research in the right direction.

Following a brief introduction to the underlying principles of digital imaging, Peter Cope splits his subject into basic, pro and classic techniques. The basics cover such things as selections, layers and filters, and the classics take on the likes of duotone and sepia emulation. Pro techniques include artificial lighting and depth-of-field manipulation. The final section looks at what makes for the ideal digital darkroom set-up, taking in both hardware and software.

This book acts as a discussion of the possibilities offered by digital photography and image manipulation, rather than an explicit tutorial or guide. If you're confident of your own creativity but want a laid-back introduction to what can be done with today's digital technology, then this book will serve you well.

VERDICT **4**/5

PHOTOSHOP SECRETS OF THE PROS

Author **Mark Clarkson** Publisher **Sybex** Price **£32.99**
ISBN **0-7821-4191-9** Web **www.sybex.com**

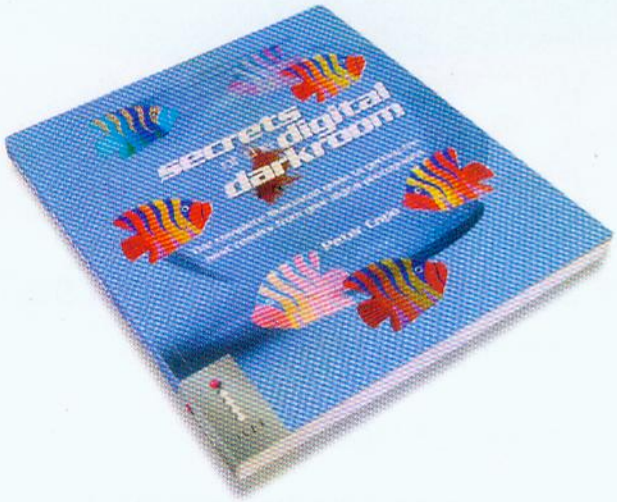
Anyone with more than a passing familiarity with Adobe's flagship application will find this book rivetting. Mark Clarkson's *Secrets Of The Pros* uses the sport of *Photoshop* tennis to give a group of 20 design professionals the chance to show off their favourite imaging techniques.

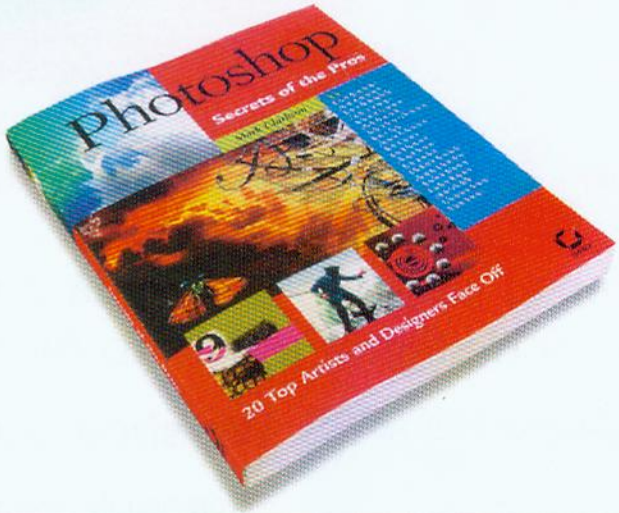
For the uninitiated, 'Photoshop Tennis' involves a pair of designers flashing an image back and forward, each adding to or embellishing the work of the last, producing a set of synergistic images. The book enables us to look over the shoulder of each artist as they go about their work.

Each chapter begins with an introduction, giving us a chance to size up both artists, their favoured style and relative experience, along with a theme for the match. For example, 'Transatlantic Love Match' is the match between packaging designer Christine Smart and interactive designer Manuel Clement.

Although the resulting images are sometimes weak, the range of skills and motivations on display more than compensates, making this a great book for professional and novice alike.

VERDICT **4.5**/5



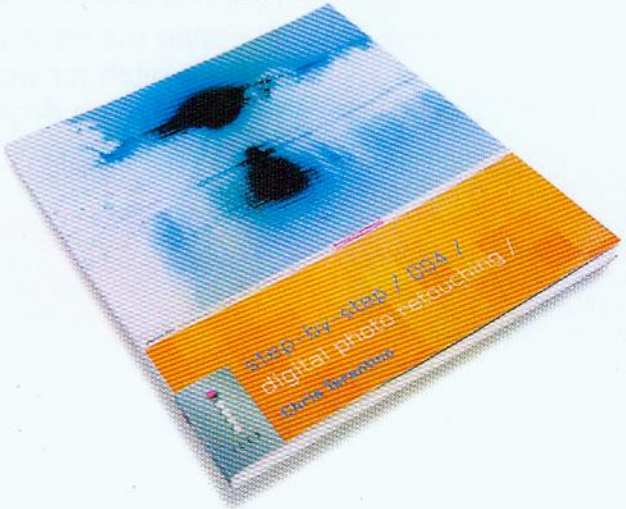


STEP-BY-STEP/004/DIGITAL PHOTO RETOUCHING

Author **Chris Tarantino** Publisher **Ilex Press** Price **£14.95**
ISBN **1-904705-12-X** Web **www.ilex-press.com**

Written with the amateur digital photographer in mind, this book is a good introduction to the retouching and image-restoration tools in both *Photoshop* and *Photoshop Elements*. Simple, well-illustrated tutorials make it the ideal companion for anyone new to *Photoshop* with an archive of prints to fix.

The book is split into five chapters, starting with a general consideration of digital imaging and automated image fixes. After introducing a proposed workflow, the central two chapters tackle a set of projects with common retouching requirements. The projects generally have only a handful of steps and there's no accompanying CD, so these are not anything you could call in-depth tutorials.

The layout and quality of the book are good and the text is generally clear, although the attempt to be relevant to both *Photoshop* and *Elements* users muddies the water a little. There are plenty more substantial titles on this subject but, for the novice, plain language and quality illustrations make for much faster learning.

VERDICT **4**/5